

**EFFECTIVENESS OF GUIDED IMAGERY ON
ANXIETY AMONG HEAD AND NECK
CANCER PATIENTS IN SELECTED
HOSPITAL**



**A DISSERTATION SUBMITTED TO THE TAMIL NADU
DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI,
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF MASTER OF SCIENCE
IN NURSING**

APRIL – 2014

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BY

301231902

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**A QUASI EXPERIMENTAL STUDY TO ASSESS THE
EFFECTIVENESS OF GUIDED IMAGERY ON ANXIETY
AMONG HEAD AND NECK CANCER PATIENTS AT
INTERNATIONAL CANCER CENTRE, NEYYOOR**

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1. _____

2. _____

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Principal

APRIL-2014

DECLARATION

I hereby declare that the present dissertation title **“A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”**, is the outcome of the original research work undertaken and carried out by me under the guidance of **Prof. Mrs. J.M Jerlin Priya M.Sc(N), Principal cum professor** in Medical Surgical Nursing Department, and **Mr. Vinifred M.Sc(N), HOD**, in Psychiatric Nursing. I also declare that the material of this has not found in any way, the basis for the award of any degree or diploma in the university or any other university.

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VII	Certificate of guided imagery.
VIII	Research Participants consent form.
IX	Certificate of English Editing.
X	Certificate of Tamil Editing.
XI	Certificate of Statistical analysis and interpretation.
XII	Tool for data collection (English and Tamil). Part: I Demographic variables. Part: II Modified Zung Anxiety Assessment Scale.
XIII	Master code sheet.

LIST OF ABBREVIATIONS

GAD	-	Generalized Anxiety Disorder
GIR	-	Guided Imagery And Relaxation
RT	-	Radiation Therapy
HADS	-	Hospital Anxiety And Depression Scale
ESAS	-	Edmonton Symptom Assessment System
MMQOL	-	Mcgill Quality Of Life Questionnaire
HRQOL	-	Health-Related Quality Of Life
GHQ	-	General Health Questionnaire
SIR_s	-	Standardized Incidence Ratios
DIC₂	-	Distress Inventory For Cancer Version 2
FACT	-	Functional Assessment Of Cancer Therapy
CI	-	Confidence Intervals
POMS	-	Profile Of Mood States
QOL-CA	-	Quality Of Life Cancer
STAI	-	Spielberger State-Trait Anxiety Inventory

ABSTRACT

A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF GUIDED IMAGERY ON ANXIETY AMONG HEAD AND NECK CANCER PATIENTS

INTRODUCTION

Guided imagery is also known as mind-body medicine, essentially because we are using our mind to affect the status of our body, this form of alternative therapy has two main objectives: Emotional conflicts due to negative life experiences can be shed from the conscious mind by teaching the individual to re-train their thoughts and feelings to a peaceful co-existence with the former bad experiences. Some commonly used types of guided imagery include; Relaxation imagery, which involves conjuring up pleasant, relaxing images that rest the mind and body. These may be experiences that have already happened, or new situations. In healing imagery, patients coping with diseases and injuries can imagine cancer cells dying, wound healing, and the body mending itself.

Neel, C.et al. (2013) conducted a study on the “determinants of death anxiety in patients with advanced cancer”. **The study design was** cross-sectional analysis of baseline data from a phase 2 pilot intervention trial. **Setting of this study was** Princess Margaret Cancer Centre, University Health Network, Toronto, Canada. **The main outcome of this study was** death anxiety, as measured by the Death and Dying Distress Scale (DADDS). Thirty-two per cent of the sample reported death anxiety of at least moderate severity. The physical symptoms most strongly associated

with death anxiety were changes in physical appearance. The findings suggest that death anxiety in patients with advanced cancer is common and determined by the interaction of individual factors, family circumstances and physical suffering.

Gillies, L.C. (2005) had performed a study “to assess the effects of guided imagery and relaxation on patients receiving treatment for non-metastatic cancer”. This study was aimed at helping patients manage and cope with negative symptoms of cancer, could significantly reduce anxiety levels in patients with cancer receiving radiotherapy. The participant was requested to listen to this tape at least once a day. A general conclusion to this pilot study suggests that guided imagery may contribute to a lowering of anxiety.

STATEMENT OF THE PROBLEM

“A Quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”.

OBJECTIVES

1. To assess the pretest and post test level of anxiety among head and neck cancer patients in experimental and control group.
2. To assess the effectiveness of guided imagery in reducing level of anxiety among patients with head and neck cancer between experimental group with control group.

3. To determine the association between the post test level of anxiety among head and neck cancer patient with their selected demographic variables in experimental group.

HYPOTHESES

H₁ : There will be a significant difference between the pre-test and post-test level of anxiety among head and neck cancer patients in experimental and control group.

H₂ : There will be a significant difference in post test level of anxiety among head and neck cancer patients between experimental and control group.

H₃ : There will be significant association between the post test level of anxiety among head and neck cancer patients with selected demographic variables in experimental group .

RESEARCH METHODOLOGY

The study was conducted in order to assess the head and neck cancer patients with anxiety by using a Modified Zung Anxiety Assessment Scale for cancer patients by the investigator and also the demographic variables of head and neck cancer patients were gathered from the participant's profile. After the conduction of pre-test and analyzing the score of head and neck cancer patients anxiety by using Modified Zung Anxiety Assessment Scale for cancer patients, the investigator found that 60 head and neck cancer patients had minimal to moderate and moderate to severe anxiety. All those 60 head and neck cancer patients were met the inclusion criteria and they were selected as 30 head and neck cancer patients were experimental group and 30 head and neck cancer patients were control group samples by using non

probability convenient sampling technique. The intervention of guided imagery was given to head and neck cancer patients with anxiety for 30 minutes every day for 21 days. The head and neck cancer patients showed much interest in guided imagery, which was observed throughout the intervention period. After 4 weeks of intervention a post-test was conducted using the same tool by the investigator.

DATA ANALYSIS

Paired t-test was used to compare pretest and posttest level of anxiety among head and neck cancer patient in experimental group and control group and unpaired t-test was used to compare post test level of anxiety among head and neck cancer patients in experimental group and control group. Chi square test was used to associate the posttest level of anxiety among head and neck cancer patient with selected demographic variables.

FINDINGS OF THE STUDY

Findings related to comparison of the post test level of anxiety between experimental and control group.

In experimental group, the pre test mean score is 59 with Standard deviation of 7.52, mean difference 51.48 and the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03. The calculated paired t-test score is 4.05. It is significant at $p < 0.05$ level.

On the other hand control group, the pre test mean score was 57.6 with Standard deviation of 7.8, mean difference 49.8 and the post-test mean score was 52.7

with Standard deviation of 6.57, mean difference 46.13. The calculated paired t-test score was 2.64.

Findings related to association between the post-test level of anxiety among head and neck cancer patients with their selected demographic variables in experimental group.

In experimental group the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03 and in control group post test mean score is 52.7 with Standard deviation of 6.57, mean difference 46.13 and the calculated unpaired t-test is 4.38 which was significant at $p < 0.05$ level. So the stated hypothesis (H_3) is accepted.

CONCLUSION

The study finding revealed that guided imagery helps to reduce the anxiety level among head and neck cancer patients. The overall experience of conducting the study was new experience for the investigator in the field of research. The constant encouragement and the direction of guides, co-operation of respondents to participate in the study contributed to the fruitful and successful completion of the study.

CHAPTER I

INTRODUCTION

- *Background of the study*
- *Need for the study*
- *Statement of the problem*
- *Objectives of the study*
- *Hypotheses*
- *Operational definitions*
- *Assumptions*
- *Delimitations*
- *Conceptual framework*

CHAPTER – I

INTRODUCTION

“To look behind or to look up front is not as important as to look inside”

- Randolph Waldo

Cancer- even the word instils fear and sense of dejection. Simply put cancer is an uncontrolled growth of non-functional cells leading to death and destruction of functional ones. Cancer does not just affect the body of a person. It erodes the mind as well. Cancer is a disease that begins in the cells of the body. In normal situations the cells grow and divide as the body needs them. No more no less. This orderly process is disturbed when new cells form that the body were not needed and old cells don't die when they should. These extra cells lump together to form a growth or tumor.

Over time the cells in the tumor all originating from a single cell acquire certain traits that allow them to continue proliferating. If not treated in time the cells can leave their original tissue and invade other healthy tissue in a process called metastasis. The patient eventually may die not of the tumor itself, but from damage caused to other adjacent tissues. If detected early, the tumor can be surgically removed; very often, by the time the cancer is diagnosed, the cells have already metastasized, making it virtually impossible to remove the tumor.

The ability and power of the mind to help influence the body in healing is quite extraordinary and at times, it seems unbelievable what can transpire with this powerful influence. The connection between the mind and physical health has been well documented and extensively studied. One among the application of those studies is

mentioned as the therapeutic Guided Imagery, which will help us to tap into its powerful influence for cancer treatment and recovery.

Imagery is said to be a relaxation technique, similar to meditation and self-hypnosis, that has physical and psychological effects. Promoters claim it can relax the mind and body by decreasing heart rate, lowering blood pressure, and altering brain waves. Some supporters also say that imagery can relieve pain and emotional anxiety, make drugs more effective, and provide emotional insights. Practitioners use imagery to treat people with phobias and depression, reduce anxiety, increase motivation, promote relaxation, increase control over one's life, improve communication, and even to help people stop smoking. Imagery is also used in biofeedback, hypnosis, and neuro-linguistic programming. For oncology patients, some supporters of imagery report that it can relieve nausea and vomiting from chemotherapy, relieve anxiety associated with having cancer, enhance the immune system, help with weight gain, combat depression, and lessen pain.

Guided imagery is believed to have been used as a medical therapy for centuries. There is recorded evidence that Tibetan monks in the 13th and 14th centuries began meditating and imagining that Buddha would cure diseases. Some say the techniques even go back to the ancient Babylonians, Greeks, and Romans.

Guided imagery is also known as mind-body medicine, essentially because we are using our mind to affect the status of our body, this form of alternative therapy has two main objectives: Emotional conflicts due to negative life experiences can be shed from the conscious mind by teaching the individual to re-train their thoughts and feelings to a peaceful co-existence with the former bad experiences. Some commonly used types of guided imagery include; Relaxation imagery, which involves conjuring up pleasant, relaxing images that rest the mind and body. These may be experiences that have already

happened, or new situations. In healing imagery, patients coping with diseases and injuries can imagine cancer cells dying, wound healing, and the body mending itself.

The simplest explanation of guided imagery as one of the types of alternative medicine is the principle of using your own positive reinforcement from the mind to improve your health and well-being. Guided Imagery has been called the language of the mind. It is a language that the mind can use to talk to the body, a language the body can understand immediately without question. It has also been described as the interface, or connection between the body and the mind because of the positive chemical and biological changes it can produce in the body. These changes are extremely useful in the successful treatment of and recovery from cancer. Anxiety is a pervasive feeling of dread, apprehension and impending disaster. Generalized anxiety disorder (GAD) is characterized by excessive, exaggerated anxiety and worry about life events with no obvious reasons for worry.

NEED FOR THE STUDY

Cancer is a major life – threatening disease. The World Health Organization predicts that the global numbers of new cancer patients are expected to be increased 15 million and more than 11 million will die from this disease in the year 2011.²⁰ 20 to 40% of cancer patients show emotional distress.

Cancer affects people in worldwide approximately 10 million people are diagnosed with cancer and more than 6 million die of the disease every year. About 22.4 million persons were living with cancer in the year 2007. Cancer prevalence in India is estimated to be around 2.5 million with over 8, 00,000 new cases and 5, 50,000 deaths occurring in each year due to this disease. Cancer not only affects organs system physically but can also affect the mind as a psychiatric disorder, anxiety disorders and symptoms are common in cancer patients(Up to 38% is having major anxiety). It worsens

the course of cancer treatment, persist long after cancer therapy, and reoccur with the reoccurrence of cancer and significantly on quality of life. Anxiety is seen in many cancer patients approximately 25% of palliative care patients. Palliative counselling for patients and supportive counselling for their family are recommended as part of treatment plan.

The occurrence of Cancer Disease is high in men than women. However, in people less than 85 years of age, cancer is the leading cause of death. In 2006, it was estimated that 5,64,830 Americans died as a result of cancer, which is more than 1500 people per day. More than 10 million Americans are alive today who have a history of cancer.

Rolke. H. B. et al ., conducted a study on Cancer patients. It revealed that cancer is a disease that entails inquiries and a wide range of problems. Anxiety which is part of human life, is a relevant problem of cancer patients during and after treatment. Cancer related anxiety is subjectively experienced symptom that is multidimensional and multifactorial which leads to anxiety in their lives. Several studies have shown that guided imagery can improve the quality of life and functional status of cancer patients undergoing radiation therapy. An anxiety and depression were common in cancer patients and reduced their quality of life.

Sherman DW. et al., (2009) conducted an explorative study at the palliative care centre for Excellence in Research University of Maryland, School of Nursing, Baltimore, Maryland, USA based on a sample of 101 patients. The study examined the death anxiety of patients with advanced cancer and that of family caregivers and the relationship of death anxiety and quality of life The result indicated that the cancer patients expressed greater death anxiety was not different among family caregivers. Greater death anxiety was associated with lower quality of life. Particularly psychological domain of cancer patients.

While guided imagery cannot fight cancer itself, the technique may help to treat certain cancer-related complications. Although there are many different approaches to guided imagery, the technique often involves visualizing in a peaceful place. When used as an adjunct treatment for oncology patients (and other health conditions), guided imagery may also involve visualizing specific images associated with healing. Guided imagery appears to increase comfort and support psychological well-being in oncology patients.

In a pilot study of 62 hospitalized oncology patients currently experiencing anxiety, researchers found that using guided imagery audiotapes helped to reduce anxiety. Study results suggest that patients with greater visualization abilities may be more likely to experience anxiety reduction when using guided imagery. Guided imagery may help to boost mood and improve quality of life for oncology people, according to a study of eight people with a history of cancer. For 10 weeks, half the participants took part in weekly sessions that combined guided imagery and music. Compared to study subjects assigned to a waitlist, the treatment group experienced greater improvements in mood and quality of life.

Guided imagery is a programme of directed thoughts and suggestions that guide imagination towards a relaxed, focused state. The guided image has been found to provide significant anxiety reduction benefits, including physically relaxing the body quickly and efficiently and even helping participants get in touch with deeper levels of wisdom (held on a sub conscious level) that would help them better manage their lives in ways that would reduce anxiety. With the help of an imagery tape, a professional helper, or just one's imagination, those who practice guided imagery get into a deeply relaxed state and envision with great detail relating to all of the senses provides a relaxing scene. The studies demonstrate that the health benefits of imagery are so numerous that many hospitals are incorporating imagery as an option for treatment.

Many studies have shown that relaxation with guided imagery or hypnosis can reduce client anxiety and movement even in children, increase client tolerance and satisfaction with the procedure and reduce anxiety. There are different types of guided imagery such as relaxation imagery, healing imagery, pain control imagery and mental rehearsal.

STATEMENT OF THE PROBLEM

“A Quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”.

OBJECTIVES OF THE STUDY:

1. To assess the pretest and post test level of anxiety among head and neck cancer patients in experimental and control group.
2. To assess the effectiveness of guided imagery in reducing level of anxiety among patients with head and neck cancer between experimental group with control group.
3. To determine the association between the post test level of anxiety among head and neck cancer patient with their selected demographic variables in experimental group.

HYPOTHESIS:

H₁ : There will be a significant difference between the pre-test and post-test level of anxiety among head and neck cancer patients in experimental and control group.

H₂ : There will be a significant difference in post test level of anxiety among head and neck cancer patients between experimental and control group.

H₃ : There will be significant association between the post test level of anxiety among head and neck cancer patients with selected demographic variables in experimental group .

OPERATIONAL DEFINITIONS:

Assess:

In this study, ‘assess’ refers to the critical analysis and valuation or judgment of the status or quality of a head and neck cancer patients by means of Modified Zung Anxiety Assessment Scale.

Effectiveness:

In this study, ‘effectiveness’ refers to the significant reduction in the level of anxiety as determined by the differences between pre-test and post test anxiety scores.

Guided imagery:

In this study, guided imagery is a convenient and simple relaxation technique given to the patient in order to manage anxiety for 30 minutes daily at morning and evening for 21 days with the use of microphones.

Anxiety:

In this study, anxiety refers to an emotional nervousness of head and neck cancer patients. It was assessed by Modified Zung Anxiety Assessment Scale.

Cancer:

In this study, it refers to first and second stage head and neck cancer patients those who are residing in International Cancer Centre, Neyyoor.

ASSUMPTIONS

This study assumes that

- Anxiety among head and neck cancer patients is very common.
- High level of anxiety reduces the quality of life in head and neck cancer patients.
- Guided imagery make some changes in their anxiety level.
- Nurse can promote psychological well being by using alternative measures

LIMITATIONS:

The study was limited to,

- Patient with head and neck cancers.
- The sample size of 60 subjects.
- The study period of 4 weeks.
- Head and neck cancer patients who are willing to participate in the study.

PROJECTED OUTCOME

- The study will help to find out the anxiety of head and neck cancer patients.
- The study will help to find out the association between the anxiety of head and neck cancer patients and the selected demographic variables such as age, gender, religion, education, occupation, type of family, monthly income status, residence of patient, duration of illness.
- The study will help to find out the effectiveness of guided imagery on anxiety among head and neck cancer patient.

CONCEPTUAL FRAMEWORK

Conceptual framework is the brief explanation of a theory or those portions of a theory to be tested in a study.

-(Grove, S.2003).

The conceptual framework of this study is based on the Callista Roy's adaptation model (1984). Roy's model focuses on the concept of adaptation of man. Nursing has a unique goal to assist the person in his adaptation effort by managing the environment. The result is attainment of an optimum level of wellness by the person. According to Roy a system is a set of units so, related or connected to form unity or whole and characterized by inputs, outputs, control process and feedback processes.

INPUT

A stimulus is "the degree of change or stimulus most immediately confronting the person and the one to which the person must make an adaptive response, that is, the factor that precipitates behaviour.

In this study, 'input' refers to the selected demographic variables of head and neck cancer patients with anxiety such as age, sex, religion, marital status, educational status, occupation, type of family, monthly income status, residence of patient and duration of illness.

CONTROL PROCESS

Roy views that perception of the person links the regulator with cognator.

In this study, 'control process' refers to level of anxiety among head and neck cancer patients in International Cancer Centre, Neyyoor.

EFFECTORS

Effectors are the ways of coping that manifest regulator and cognator activity. Effectors refers to the physical function consists of four adaptive modes, physiological modes, self concept, role function and independence modes.

In this study, effectors refers to performance of guided imagery in experimental group and no intervention for control group among the head and neck cancer patients.

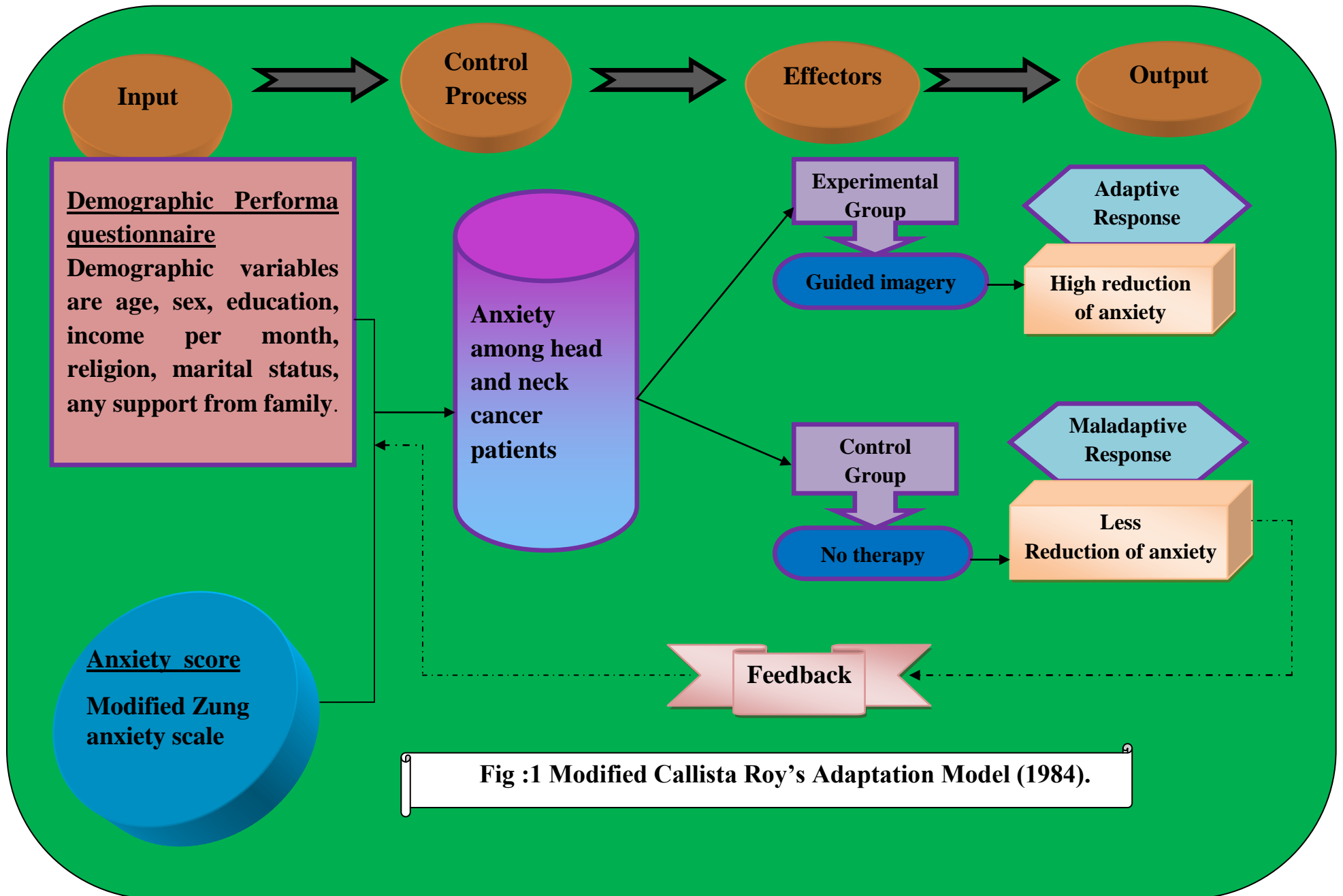
OUTPUT

Adaptive responses are “responses that promote integrity of the person in terms of the goals of survival, growth, reproduction and mastery”. Ineffective responses are “responses that do not contribute to adaptive goals that is survival, growth, reproduction and mastery.

In this study, output refers to the effective responses towards the reduction of anxiety in experimental group among head and neck cancer patients. The ineffective response is the less or no reduction of anxiety in control group among head and neck cancer patients.

SUMMARY

This chapter deals with the introduction, need for the study, background of the study, statement of the problem, objectives, hypothesis, operational definition, assumption, delimitation, conceptual frame work and its model.



CHAPTER II

REVIEW OF LITERATURE

- *Studies related to anxiety among head and neck cancer patients.*
- *Studies related to effect of guided imagery on anxiety among head and neck cancer patients.*
- *Summary*

CHAPTER – II

REVIEW OF LITERATURE

Review of literature helps to develop a strong knowledge base to carry out research in educational, clinical practice settings and for further development of knowledge in nursing science **(Polit, 2011).**

The purpose of review of literature involved in any research study is to become knowledgeable in that field. This chapter presents the recent literature on the effectiveness of guided imagery on anxiety among cancer patients.

The review of literature covers an extensive, systematic examination of publication, relevant to the topic studied under subheadings.

I . Studies related to anxiety among head and neck cancer patients.

II . Studies related to effect of guided imagery on anxiety among cancer patients.

I. STUDIES RELATED TO ANXIETY AMONG HEAD AND NECK CANCER PATIENTS.

Mitchell, A.J. Ferguson, D.W. (2013) conducted a study on the “depression and anxiety in long-term cancer survivors compared with spouses and healthy controls: a

systematic review and meta-analysis”. This study describes in which they assessed whether depression and anxiety are more common in long-term survivors of cancer compared with their spouses and with healthy controls. The prevalence of anxiety was 17.9% (95% CI 12.8—23.6) in 48 964 cancer survivors and 13.9% (9.8—18.5) in 226 467 healthy controls (RR 1.27, 95% CI 1.08—1.50; $p=0.0039$). This findings suggest that anxiety is most likely to be a problem in long-term cancer survivors and spouses compared with healthy controls.

Neel, C.et al. (2013) conducted a study on the “determinants of death anxiety in patients with advanced cancer”. The study design was cross-sectional analysis of baseline data from a phase 2 pilot intervention trial. Setting of this study was Princess Margaret Cancer Centre, University Health Network, Toronto, Canada. The main outcome of this study was death anxiety, as measured by the Death and Dying Distress Scale (DADDS). Thirty-two per cent of the sample reported death anxiety of at least moderate severity. The physical symptoms most strongly associated with death anxiety were changes in physical appearance. The findings suggest that death anxiety in patients with advanced cancer is common and determined by the interaction of individual factors, family circumstances and physical suffering.

Cohen, M. (2013) had performed a study on “depression, anxiety, and somatic symptoms in older cancer patients: a comparison across age groups”. Participants were composed of 321 cancer patients 60 years and older, who were divided into three age groups: 60 to 69 years, 70 to 79 years, 80 years and above. The participants answered the

Brief Symptom Inventory-18. Depressive, anxiety, and somatic symptoms and cancer-related problems were lowest in the 70 to 79years age group and highest in the 80years and above age group. These results suggest that the study of psychological reactions to cancer should examine differences between age groups among older cancer patients.

Yang, Y.et al. (2013) had done a study on “the prevalence of anxiety among Chinese adults with cancer: a systematic review and meta-analysis”. The prevalence of anxiety were significantly higher in adults with cancer . Anxiety: OR = 4.40, 95% CI = 3.05-6.36) were lower than in those compared with normal group . They identified high prevalence rates of anxiety (15.47, 95%) among Chinese adults with cancer.

Kandasamy, A. Chaturvedi, S.K. and Desai,G. (2011) conducted a study on “spirituality, distress, depression, anxiety and quality of life in patients with advanced cancer”. The study was cross-sectional in nature. Fifty patients with advanced cancer from a hospice were assessed with the following instruments: the visual analog scale for pain (VAP), M.D. Anderson symptom inventory (MDASI), Hospital Anxiety Depression Scale (HADS), Functional assessment of cancer therapy - Palliative Care (FACT-pal), and Functional assessment of chronic illness therapy-spiritual well-being (FACIT-sp). Anxiety was negatively correlated with spiritual well-being (Sp WB). Sp WB was significantly correlated with fatigue symptom distress, memory disturbance, loss of appetite, drowsiness, dry mouth, and sadness .

Arunachalam, D.et al. (2011) had performed a study on “quality of life in cancer patients with disfigurement due to cancer and its treatments”. The aim of this study was to evaluate the effect of disfigurement due to cancer and its treatments on quality of life. A total of 120 patients from the inpatient/outpatient department of oncology who had undergone various forms of treatment for cancer were included in this study. A sudden change either due to cancer or its treatment or due to side effects leads to significant social maladjustment, elevated anxiety, depression, and poor quality of life among the cancer survivors with body disfigurement which calls for multi professional involvement in addressing various psychosocial issues.

Thapa, P. Rawal, N. and Bista, Y. (2010) conducted a study on “depression and anxiety in cancer patients”. The aim of the study was to assess the prevalence of depression and anxiety in cancer patients. A cross sectional case control study design was used. Depression and anxiety was assessed on 50 cancer patients (cases) and on 50 healthy individuals (controls). The tools used were Structured Proforma , General Health Questionnaire (GHQ) and Hospital Anxiety and Depression Scale (HADS). A total of 30 (60.0%) were detected as ‘cases’ or having psychiatric morbidity based on a cutoff score of above 2 on 12 item General Health Questionnaire. Depression was present in 28.0% of cancer patients whereas 40.0% of cancer patients had anxiety as per Hospital Anxiety and Depression Scale.

Nazik, E.et al. (2008) conducted a study on “anxiety and symptom assessment in Turkish head and neck cancer patients receiving chemotherapy”. The aim of this study was to determine the level of such symptoms in Turkish head and neck

cancer patients receiving chemotherapy. All the data were collected using a personal information form, Edmonton Symptom Assessment System and State-Trait Anxiety Inventory. The mean State Anxiety score of patients was 43.1 ± 9.77 and mean Trait Anxiety score was 46.7 ± 7.01 . Comparing symptoms of patients and mean State Anxiety score it was found that there was a statistically significant correlation with symptoms like pain ($p < 0.05$), sadness ($p < 0.001$), insomnia ($p < 0.05$), state of well being ($p < 0.001$) and dyspnea ($p < 0.05$).

Pandey, M. et al. (2007) conducted a study on “distress overlaps with anxiety and depression in patients with head and neck cancer”. The study was carried out to evaluate the relation of distress with anxiety and depression in 123 patients with head and neck cancers using Distress Inventory for Cancer version 2 (DIC2) and the Hospital Anxiety and Depression scale (HADS). Fifteen patients were found to have clinical caseness for anxiety. Results of present study suggest significant psychological morbidity in head neck cancer patients undergoing curative treatment.

Teunissen, S.C.C.M. (2007) had identified “are anxiety and depressed mood related to physical symptom burden. A study in hospitalized advanced cancer patients”. This study was used to analyze the relation between anxiety, depressed mood and the presence and intensity of physical symptoms. Anxiety and depressed mood were assessed in a hospitalized advanced cancer population ($n = 79$) primarily by the Hospital Anxiety and Depression Scale (HADS), and also by a single-item question ‘Are you anxious

and/or depressed?' and by the Edmonton Symptom Assessment System (ESAS). Physical symptoms were assessed by a semi-structured interview and by the Edmonton Symptom Assessment System. Thirty-four percent of the patients reported anxiety, 56% depressed mood and 29% both, as assessed by the Hospital Anxiety and Depression Scale. The relationship between anxiety, depressed mood and the presence and intensity of physical symptoms in hospitalized advanced cancer patients is very limited.

Pandey, M.et al. (2006) conducted a study on “distress, anxiety and depression in cancer patients undergoing chemotherapy”. The present study evaluated the effect of chemotherapy on distress, anxiety and depression. A total of 117 patients were evaluated by using distress inventory for cancer (DIC2) and hospital anxiety and depression scale (HADS). Majority of the patients were taking chemotherapy for solid tumors (52; 44.4%). The mean distress score was 24, 18 (15.38%) were found to have anxiety while 19 (16.23%) had depression.

Lin, L.P. Yee, W.S. Selamat, N.W. (2005) conducted a study on “anxiety and depressive symptoms and health related quality of life status among patients with cancer in Terengganu, Malaysia”. This study was aimed to determine the prevalence of anxiety and depressive symptoms, to examine their association with health-related quality of life (HRQoL) profiles and to determine the predictors on overall HRQoL. This was a cross-sectional study conducted in Hospital Sultanah Nur Zahirah, Kuala Terengganu, Malaysia. The prevalence for mild anxiety and depressive symptoms was

30.7% and 23.3% respectively. Findings in their study indicated that the prevalence of anxiety and depressive symptoms in Terengganu cancer patients are moderate.

Anderson,R.C. Franke,K.A. (2001) had performed a study on “psychological and psychosocial implications of head and neck cancer”. Psychosocial issues facing the head and neck cancer patient are numerous and include: coping with the initial cancer diagnosis, adjustment to living with cancer and the treatments involved depression and anxiety. The patient must also often confront issues with a spouse and family, facial disfigurement, rehabilitation, and for the terminal cancer patient, accepting death. It is recommended that additional psychosocial research and patient education efforts continue in order to assist head and neck cancer patients and their families.

Stark, D.P.H. House, A. (2000) conducted a study on “anxiety in cancer patients”. This article reviews the recent oncology and mental health literature on anxiety. They review recent research into the association of anxiety with events during diagnosis and management of cancer, highlighting the importance of the meaning of events to an individual as an important factor in making people anxious.

II . Studies related to effect of guided imagery on anxiety among cancer patients.

Othman, A.et al. (2013) had done a study on “guided imagery and relaxation audio for children with cancer”. The study aims to develop, validate and evaluate a Guided Imagery and Relaxation (GIR) audio in Bahasa Malaysia, serving as one of the coping tools for children with cancer. Twenty-three participants (5 adults, 18

children with cancer) listened to the audio and completed evaluation form. All adult evaluators gave positive remarks on the script, narration and recording quality. As for the children, 100% completed audio-hearing and majority (66.7% - 88.9%) were able to imagine well without falling asleep and in some way were positively affected by the imagery-induced relaxation audio. Majority was not disturbed during the hearing sessions (66.7%), will hear it again (83.3%) and found it enjoyable (88.8%).

Hanish, J.B. (2013) conducted a study on “guided imagery as treatment and prevention”. The objective of this paper is to determine whether learning and practicing mindfulness techniques, particularly guided imagery, helps reduce symptoms of anxiety in children and adolescents. The hypothesis is that using guided imagery as a self regulation treatment as well as prevention against childhood anxiety manifesting into disorders and diseases later in life is useful.

Debra, S.B. (2008) conducted a study on “the effect of the Bonny method of guided imagery and music on the mood and life quality of cancer patients”. Eight volunteers with a cancer history were randomly assigned to either an experimental or a wait-list control group. Experimental subjects individually participated in 10 weekly guided imagery session. All subjects completed the profile of mood states (POMS) and Quality of life cancer (QOL-CA) questionnaires pretest, posttest and at a 6 week follow up. Results indicate that guided imagery was effective in improving mood and quality of life in these cancer patients.

Antoni, M.H.et al. (2006) had done a study on “reduction of cancer specific thought intrusions and anxiety symptoms with a stress management intervention among women undergoing treatment for head and neck cancer”. The intervention reduced reports of thought intrusion, interviewer ratings of anxiety, and emotional distress across 1 year significantly more than was seen with the control condition. The beneficial effects were maintained well past the completion of adjuvant therapy.

Gillies, L.C. (2005) had performed a study “to assess the effects of guided imagery and relaxation on patients receiving treatment for non-metastatic cancer”. This study was aimed at helping patients manage and cope with negative symptoms of cancer, could significantly reduce anxiety levels in patients with cancer receiving radiotherapy. The participant was requested to listen to this tape atleast once a day. A general conclusion to this pilot study suggests that guided imagery may contribute to a lowering of anxiety.

King, J.V. (2002). Conducted a study on “a holistic technique to lower anxiety: relaxation with guided imagery”. In this study, the Donovan (1980) Relaxation with Guided Imagery (RGI) script was tested to investigate its effects on reducing state anxiety, as measured by the Spielberger State-Trait Anxiety Inventory (STAI), on 33 graduate nursing students. The RGI script was administrated three times, at two week intervals between sessions, in a one-group pre-test/post-test pre-experimental design. Findings revealed state anxiety levels were reduced in each of the three administrations at

the .001 level of confidence; that anxiety reduction was short-term, returning to previous levels in two weeks; and that trait anxiety levels were unchanged.

Summary

This chapter deals with the studies related to anxiety among head and neck cancer patients, studies related to guided imagery on anxiety .

CHAPTER III

RESEARCH METHODOLOGY

- *Research approach*
- *Research design*
- *Variables*
- *Settings*
- *Population*
- *Sample*
- *Sample size*
- *Sampling technique*
- *Sampling criteria*
- *Development of the tool*
- *Description of the tool*
- *Validity*
- *Reliability*
- *Pilot study*
- *Data collection procedure*
- *Plan for data analysis*
- *Ethical consideration*
- *Summary*

CHAPTER-III

RESEARCH METHODOLOGY

Research methods are the techniques used by researchers to structure a study and to gather and analyze information relevant to the research question. The significant of research lies in its quality and not in quantity. The need therefore, is to pay attention to designing and adhering to the appropriate methodology throughout the study for improving the quality of research.

Research methodology is the research designed to develop or refine methods of obtaining, organizing or analyzing data

(Polit, 2011).

This chapter deals with research approach, the research design, variables under study, the settings, population, sample, sampling technique, criteria for sample selection, data collection tool and technique, description of the tool, validity, reliability, scoring interpretation, pilot study, method of data collection, plan for data analysis and ethical consideration.

RESEARCH APPROACH

Quantitative approach is the powerful approach for testing hypothesis of causal relationship among variables

(Polit, 2011).

In this study, quantitative research approach was adopted.

RESEARCH DESIGN

Research design is the overall plan for obtaining answer to the questions being studied for handling some of the difficulties encountered during research process

(Polit, 2011).

In this study, the research design used was quasi experimental non equivalent control group design to determine the effectiveness of guided imagery on anxiety among head and neck cancer patients in International Cancer Centre, Neyyoor.

The diagrammatic representation of this design is as follows,

Group	Pre test	Intervention	Post test
Experimental Group	O ₁	X	O ₂
Control Group	O ₁	-	O ₂

O₁ - Represent the pre-test scoring of head and neck cancer patients anxiety by using a modified Zung Anxiety Assessment Scale.

X - Represent administering the intervention guided imagery.

O₂ - Represent the post-test scoring of head and neck cancer patients anxiety by using a modified Zung Anxiety Assessment Scale.

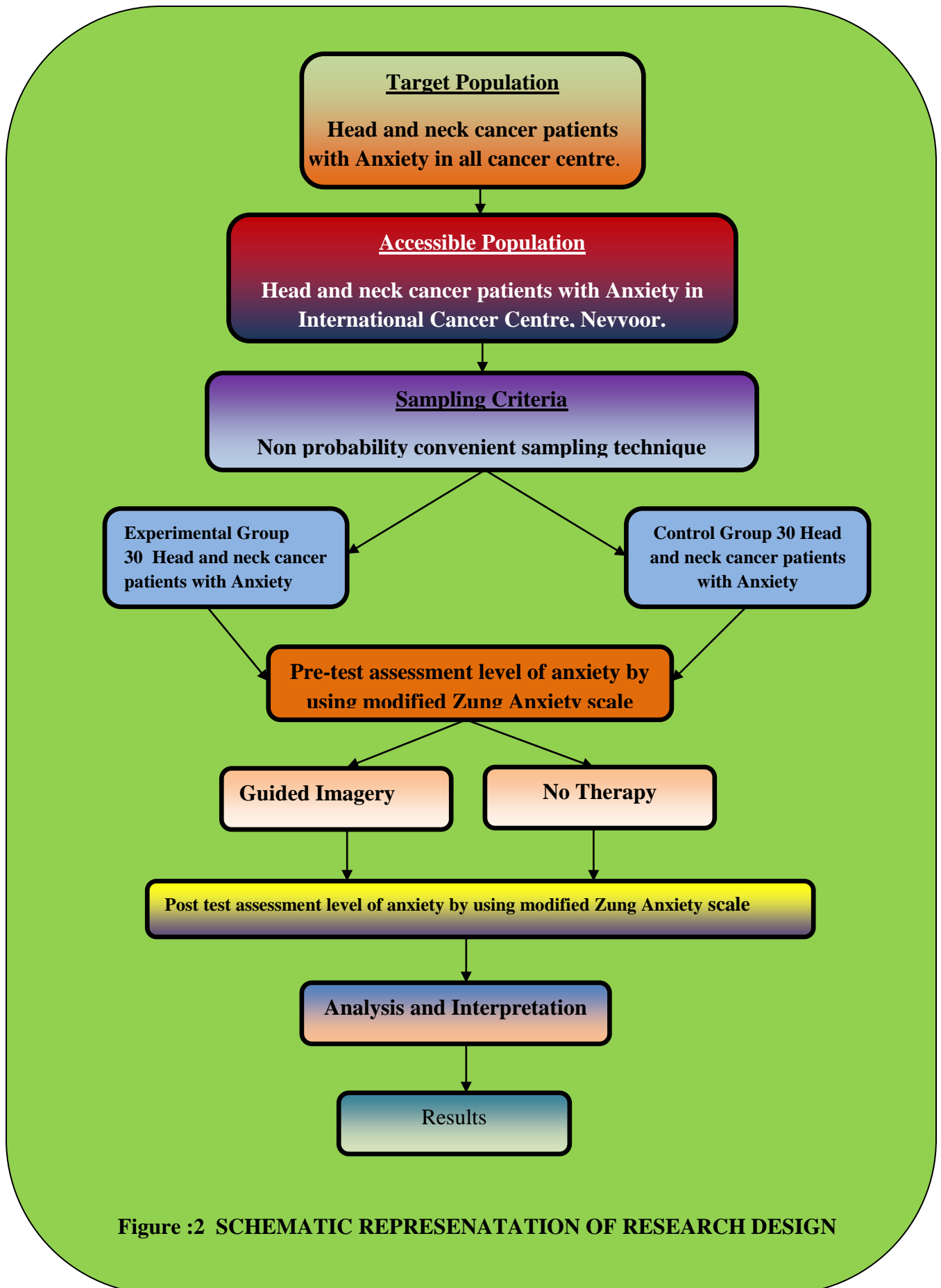


Figure :2 SCHEMATIC REPRESENTATION OF RESEARCH DESIGN

VARIABLES :-

A variable is defined as “An attribute that varies, that is, taken on different values”.

Denise F. Polit (2011)

Variables are often inherent characteristics of research subjects. The presumed cause is the independent variables; the presumed effect is the dependent variables.

In this study,

Dependent variable – Anxiety

Independent variable – Guided Imagery

SETTING OF THE STUDY

Setting is the physical location and condition in which data collection takes place in the study (Polit, 2011).

In this study, the setting was International Cancer Centre, situated in Neyyoor, which is 22 kilometres away from Annammal College of Nursing, Kuzhithurai.

POPULATION

Population is the entire set of individual or object having some common defining characteristics

(Polit, 2011).

In the present study, population comprised of all head and neck cancer patients with anxiety in International Cancer Centre Neyyoor.

TARGET POPULATION

A target population is defined as the entire population in which a researcher is interested and to which he or she would like to generalize the study result.

Denise F. Polit (2011)

In the present study, target population comprised of all the cancer centre in Kanyakumari District.

ACCESSIBLE POPULATION

An accessible population is defined as the population of people available for a particular study often a non random subset of the target population.

Denise F. Polit (2011)

In this study accessible population are all the head and neck cancer patients admitted in the International Cancer Centre Neyyoor.

SAMPLE

Sample refers to a fraction or portion of the element in a universe drawn out deliberately in a planned representative manner for studying interested characteristics of a large group of population

(Polit, 2011).

In this study, the sample consists of head and neck cancer patients who fulfilled the inclusion criteria.

SAMPLE SIZE

Sample size was the total number of sample participating in a study

(Polit, 2011).

In this study, the sample size was 60 head and neck cancer patients with anxiety, in which 30 for the control group and 30 for the experimental group.

SAMPLING TECHNIQUE

It refers to the process of selecting a portion of the population to represent the entire population

(Polit, 2011).

In this study, Non Probability Convenient sampling technique was used to select the samples (experimental group 30 and control group 30) who represent the population.

CRITERIA FOR SAMPLE SELECTION

Sampling Criteria involves selecting cases that meet some predetermined criterion of importance. The criteria for sample selection are mainly depicted under two heading, which includes the inclusive criteria and exclusive criteria.

Inclusion criteria

They refers to the specific traits that the study subjects in the population should possess

This study included:

- Both male and female head and neck cancer patients with first and second stage of cancer.
- Head and neck cancer patients who are willing to participate.

- Head and neck cancer patients who understands either Tamil or English.
- Head and neck cancer patients who are available at the time of study.

Exclusion criteria

This study excluded:

- Head and neck cancer patients with normal range of anxiety.
- Head and neck cancer patients who are seriously ill.

DEVELOPMENT OF THE TOOL

Tool development is a complex and time consuming process. It consists of defining the construct to be measured, formulating the items, assessing the items for content validity developing instructions for respondents, pre-testing, estimating the reliability and conducting pilot-study.

(Polit and Hungler, 1993)

The tool was prepared on the basis of objectives of the study. The following methods were used for the development of the tool by the investigator.

- Review of literature from books, journals, other publications and web-sites.
- Informal interview with head and neck cancer patients with anxiety.
- Investigators experience of anxiety among head and neck cancer patients .
- Discussion with subject experts like guides, psychiatrist and psychotherapist.
- Review of the standardized tool.

DESCRIPTION OF THE TOOLS:-

The tool used for the study was demographic variables and a modified Zung Anxiety Assessment Scale based on the objectives of the study and with the guidance of experts in the field of Psychiatry.

TOOLS	TECHNIQUES	PURPOSE
Demographic variables	From the participants profile and information from head and neck cancer patients.	To assess demographic characteristics.
Modified Zung Anxiety Assessment Scale	Assessing the anxiety level of head and neck cancer patients.	To assess the anxiety level of head and neck cancer patients.

The tool which was used for this study was demographic variables and Modified Zung Anxiety Assessment Scale.

Part I

Demographic variables

Information on demographic variables was collected from participants profile and using a structured questionnaire. This information was used to find out the association between the anxiety level of head and neck cancer patients and selected demographic variables like age, sex, religion, marital status, educational status, occupation, type of family, monthly income status, residence of patient and duration of illness.

Part II

Modified Anxiety Assessment Scale for cancer patients

The tool consisted of 25 items that were used to assess the anxiety level of head and neck cancer patients. Based on the scores, the anxiety levels are graded into 4 categories.

The 25 items in the Zung Anxiety Assessment Scale which has options such as within normal range , minimal to moderate , moderate to severe anxiety , most extreme anxiety and panic with a score of 1,2,3,4 respectively.

The scores are interpreted as follows,

SI . NO	LEVEL OF ANXIETY	SCORE
1	Within normal range	1 - 45
2	Minimal to moderate	46 – 59
3	Moderate to severe	60 – 74
4	Most extreme anxiety	75 and above

In this study, I have selected minimal to moderate and moderate to severe anxiety.

VALIDITY

Validity is a degree to which an instrument measures what is intended to measure

(Polit, 2011).

The content validity of the tool was determined by submitting the proforma to 10 experts (1 clinical psychologist, 1 psychotherapist, 1 psychiatrist, 7 experts from mental

health nursing). After receiving the tool from the experts, minor modifications were done as per the suggestions of the experts.

RELIABILITY

Reliability is the degree of consistency of dependability with which an instrument measures the attribute it is designed to measure

(Polit, 2011).

The reliability of a Modified Zung Anxiety Assessment Scale for head and neck cancer patients was checked by using test-retest method. The Karl Pearson co-efficient formula was used to assess the reliability. In this study the reliability of the tool was 0.9. Thus the tool was found as reliable.

PILOT STUDY

Pilot study is a small scale version or trial seen designed to test the method to be used in a large, more vigorous study which is sometimes referred to as the patent study

(Polit, 2011).

In order to test the, feasibility, relevance and practicability of the study, pilot study was conducted in International Cancer Centre, Neyyoor, after obtaining formal permission from the authority. Pre-test was conducted in order to assess the anxiety level of head and neck cancer patients using Modified Zung Anxiety Assessment Scale for cancer patients. After the conduction of pre-test the investigator selected 5 head and neck cancer patients with anxiety for experimental group and 5 head and neck cancer patients with anxiety for control group.

The intervention of guided imagery was given to the head and neck cancer patients with minimal to moderate anxiety for 30 minutes per day till 7 days. Post-test

was conducted with the help of the same tool. The pilot study revealed that the study was feasible.

METHOD OF DATA COLLECTION:-

Data collection was done within the given period of 4 weeks. A written permission was granted from the Medical Superintendent, Kanyakumari medical mission C.S.I Hospital, Neyyoor and an oral consent was obtained from the patients and relatives of each study samples after explaining the nature and purpose of the study.

Step 1

Pre intervention assessment

Pre-test was conducted in order to assess the head and neck cancer patients with anxiety by using a Modified Zung Anxiety Assessment Scale for cancer patients by the investigator and also the demographic variables of head and neck cancer patients were gathered from the participant's profile. After the conduction of pre-test and analyzing the score of head and neck cancer patients anxiety by using Modified Zung Anxiety Assessment Scale for cancer patients, the investigator found that 60 head and neck cancer patients had minimal to moderate and moderate to severe anxiety. All those 60 head and neck cancer patients were met the inclusion criteria and they were selected as 30 head and neck cancer patients in experimental group and 30 head and neck cancer patients in control group samples by using non probability convenient sampling technique.

Step 2

Administration of intervention

The intervention of guided imagery was given to head and neck cancer patients with anxiety for 30 minutes every day for 21 days. The head and neck cancer patients showed much interest in guided imagery, which was observed throughout the intervention period.

Step 3

Post intervention assessment

After 4 weeks of intervention a post-test was conducted using the same tool by the investigator.

PLAN FOR DATA ANALYSIS

The process of organizing and synthesizing data so as to answer research question and test hypothesis is known as analysis.

(Polit and Beck (2010)

Data was analysed on the basis of objectives and hypotheses. Descriptive and inferential statistics were used to analyze and interpret the data.

DESCRIPTIVE STATISTICS

- Frequency and percentage distribution of sample according to their demographic variables .
- Frequency and percentage distribution were used to assess the level of anxiety.
- Mean and standard deviation were used to assess the effectiveness of guided imagery.

INFERENTIAL STATISTICS

- Unpaired t-test was used to compare post-test level of anxiety between experimental group and control group.
- Paired t-test was used to compare the pre-test and post-test level of anxiety between experimental group and control group.

- Chi square test was used to find out the association between the post test level of anxiety among head and neck cancer patients with selected demographic variables in experimental groups.

ETHICAL CONSIDERATION

The proposed study was conducted after the approval of the dissertation committee of Annammal College of Nursing, Kuzhithurai. Permission was obtained from the Medical Superintendent of Kanyakumari medical mission C.S.I Hospital, Neyyoor, International Cancer Centre was a special department for cancer patients. The oral consent was obtained from the patients and their relatives of each study samples, before starting data collection. Assurance was given to the study subject that anonymity of each individual would be maintained. This was done for maintaining the moral and ethical as well as for the legal safety of the investigator.

SUMMARY

This chapter has dealt with the selection about the research approach, research design, variables, setting of the study, population, selection criteria, development of tool, validity, reliability, pilot study, data collection, plan for data analysis and ethical considerations.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

The analysis is defined as the method of organizing data in such a way that the research question can be answered.

(Polit and Beck, 2004)

Interpretation is the process of the result and of examining the simplification of findings with in a boarder context.

(Polit and Beck, 2004)

Analysis and interpretation of data of this study was done using descriptive and inferential statistics.

OBJECTIVES OF THE STUDY:

- ❖ To assess the pretest and post test level of anxiety among head and neck cancer patients in experimental and control group.
- ❖ To assess the effectiveness of guided imagery in reducing level of anxiety among patients with head and neck cancer between experimental group with control group.

- ❖ To determine the association between the post test level of anxiety among head and neck cancer patients with their selected demographic variables in experimental group.

ORGANIZATION OF DATA

Data collected were edited, tabulated analyzed interpreted and findings obtained where presented in the form of tables and diagrams represented on the following,

SECTION – I

Data on selected demographic variables on anxiety with head and neck cancer patients.

Section – II

Data on level of anxiety among head and neck cancer patients.

Section– III

Data on effectiveness of guided imagery on anxiety among head and neck cancer patients.

Section – IV

Data on association between post-test level of anxiety among head and neck cancer patients and selected demographic variables in experimental group.

SECTION – I

Table 1: Data on selected demographic variables on anxiety with head and neck cancer patients.

N=60

Sl.No	Variables	Experimental Group (n=30)		Control Group (n=30)	
		f	%	f	%
1	Age (in years)				
	< 25 years	4	13.3	3	10
	25-50 years	5	16.7	16	53.3
	> 50 years	21	70	11	36.7
2	Sex				
	Male	20	66.7	17	56.7
	Female	10	33.3	13	43.3
3	Religion				
	Hindu	12	40	12	40
	Christian	17	56.7	15	50
	Muslim	1	3.3	3	10
4	Marital Status				
	Unmarried	6	20	8	26.7
	Married	24	80	22	73.3
5	Educational status				
	Illiterate	5	16.7	2	6.7
	Literate	25	83.3	28	93.3

Table 1: It represents the frequency and percentage distribution of elderly with selected demographic variables such as age, sex, religion, marital status, education, occupation, type of family, monthly income status, residence of patient and duration of illness.

Regarding the age, majority of them were in the age group of above 51 years of 21 (70%) in experimental group and age group of 25-50 years 16 (53.3%) respectively in control group and others of around 3 to 11 were found in other categories in both groups.

Regarding sex, there were majority of 20 (66.7%) male in experimental group and 17 (56.7%) male in control group.

Regarding religion, majority of around 17 (56.7%) were christians in experimental group and 15 (50%) in control group .

Regarding marital status, majority of 24 (80%) and 22 (73.3%) were married persons in both groups.

Regarding education, majority of them were in literate persons of 25 (83.3%) and 28 (93.3%) in both groups.

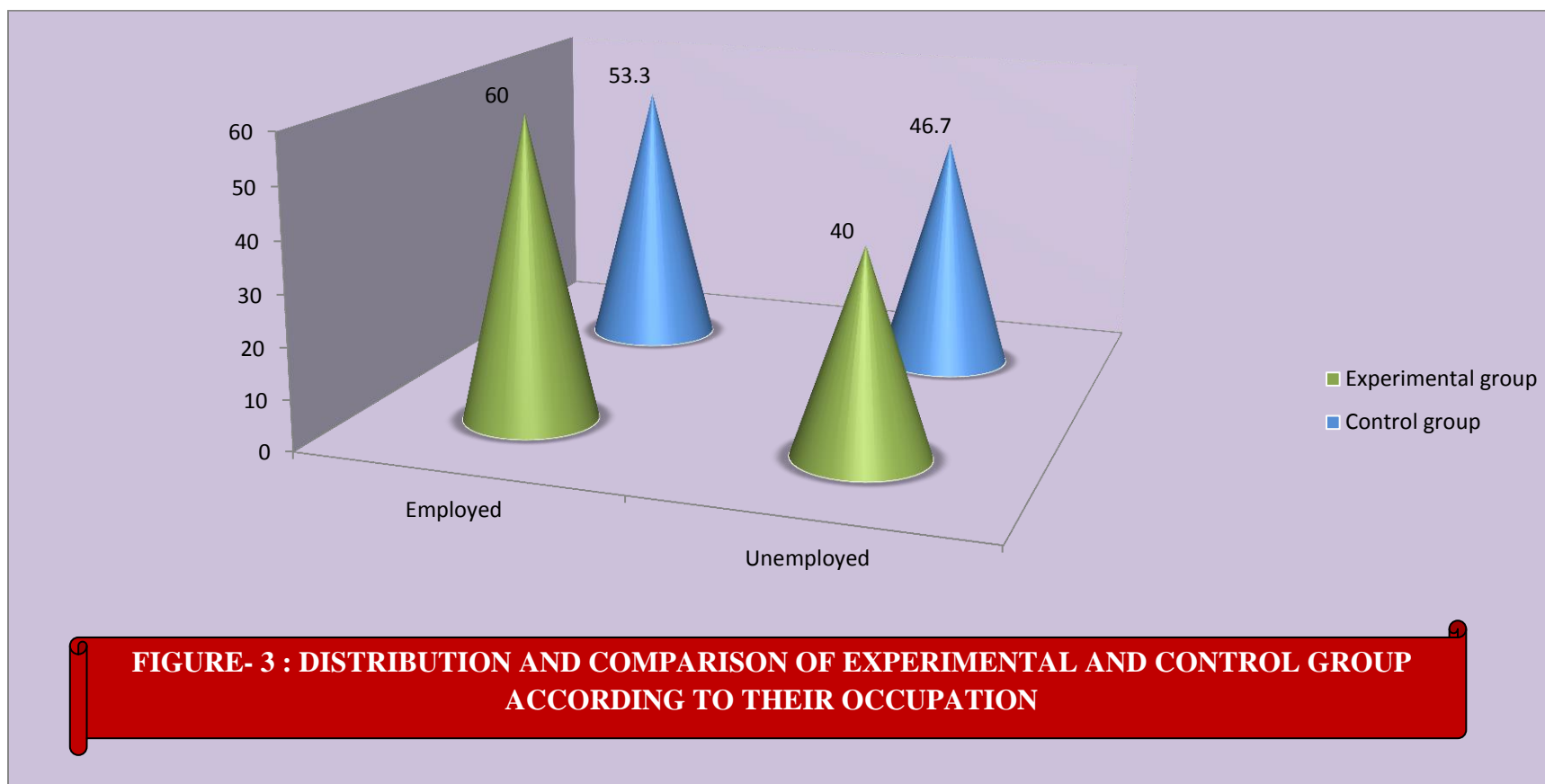


Fig.3 represents distribution and comparison of head and neck cancer patients according to their occupation, majority of 18 (60%) and 16 (53.3%) were employed in both groups respectively.

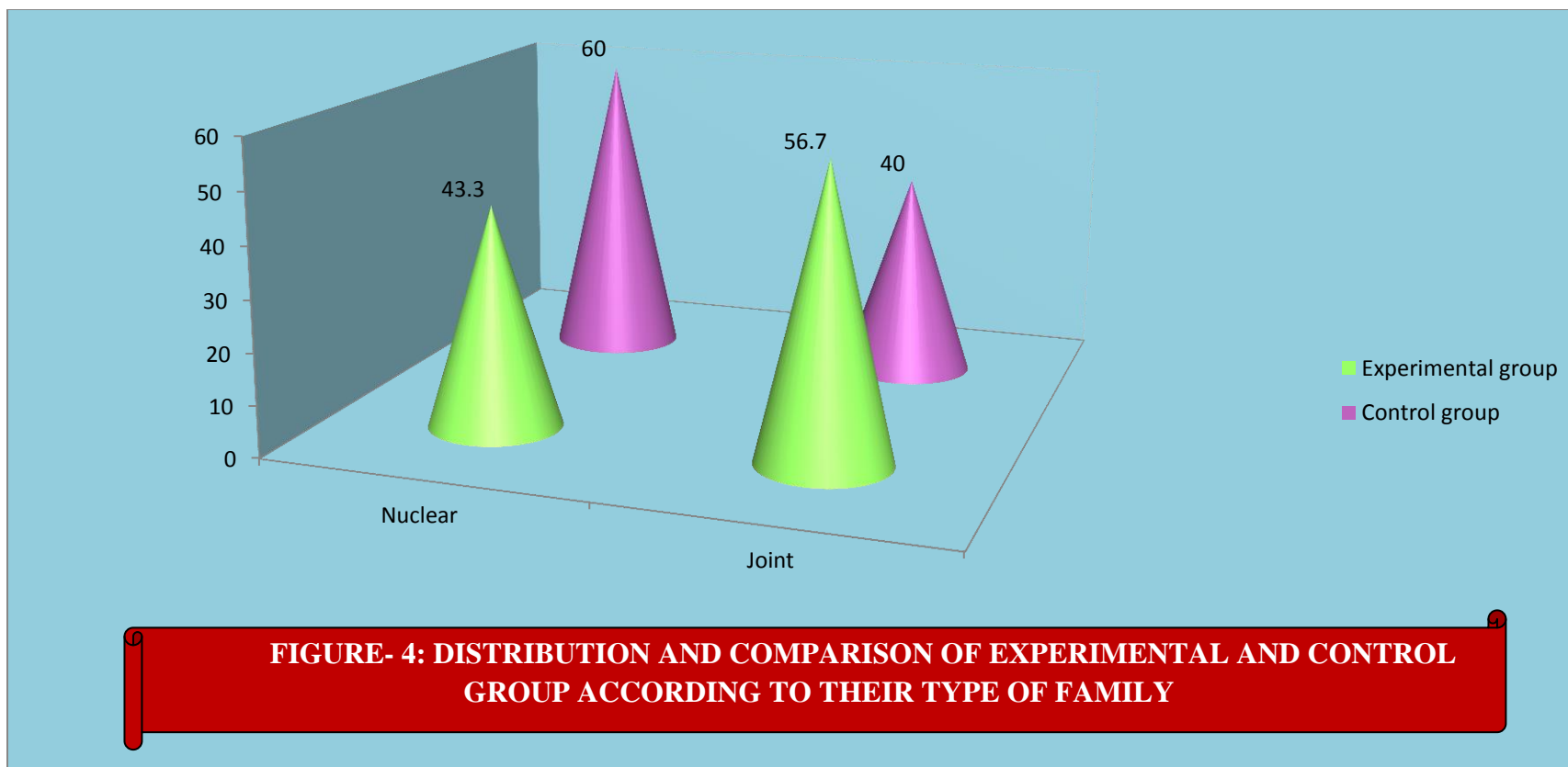


Fig.4 represents distribution and comparison of head and neck cancer patients according to their type of family, majority of 17 (56.7%) were from joint family in experimental group and 18 (60%) were from nuclear family in control group

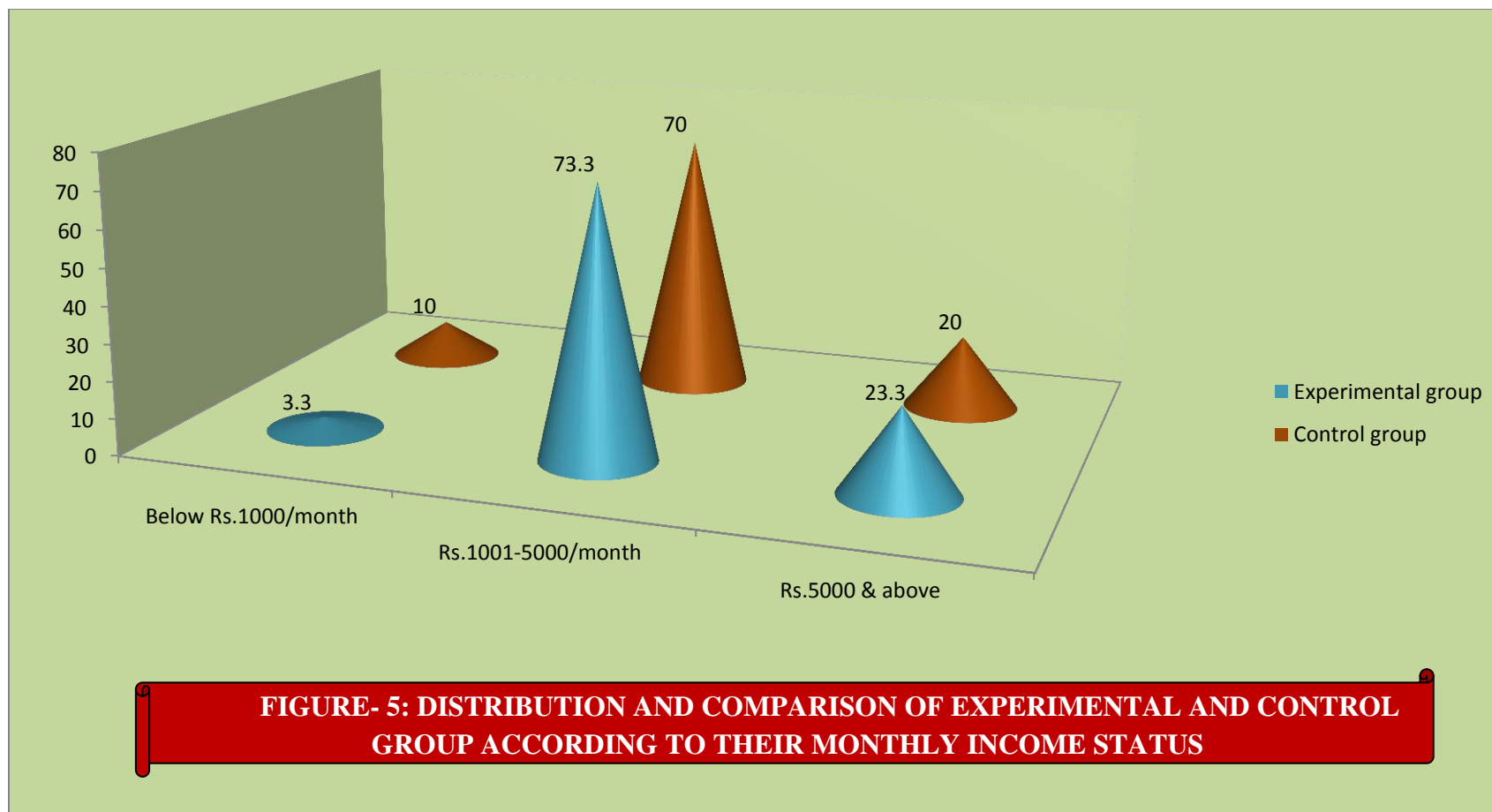


Fig.5 represents distribution and comparison of head and neck cancer patients according to their monthly income status, majority of 22 (73.3%) and 21 (70%) had Rs.1000- Rs.5000/- monthly income in both groups respectively.

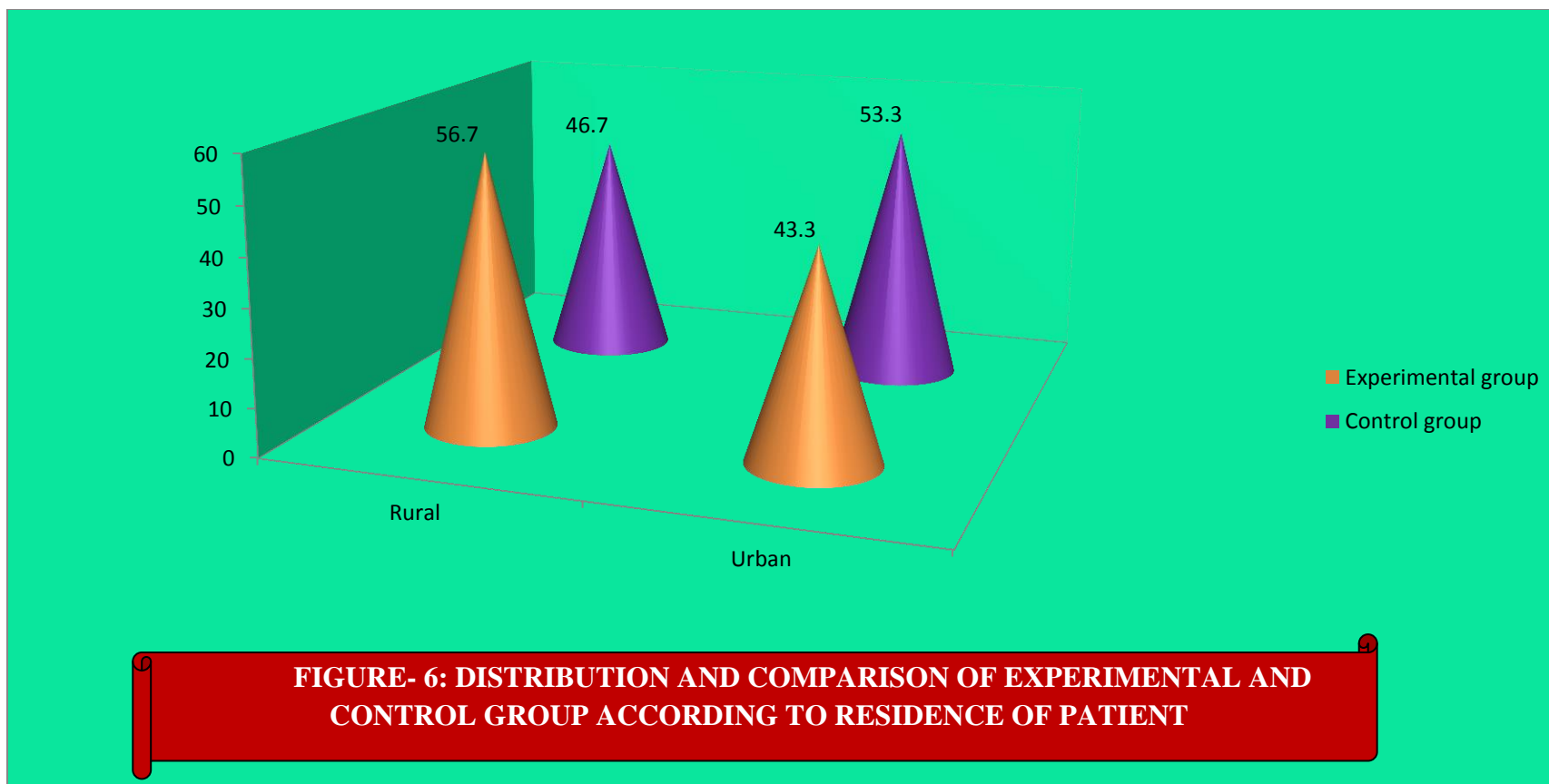


Fig.6 represents distribution and comparison of head and neck cancer patients according to their residence of patient, in experimental group majority of 17 (56.7%) were staying in rural places and in control group 16 (53.3%) were staying in urban area

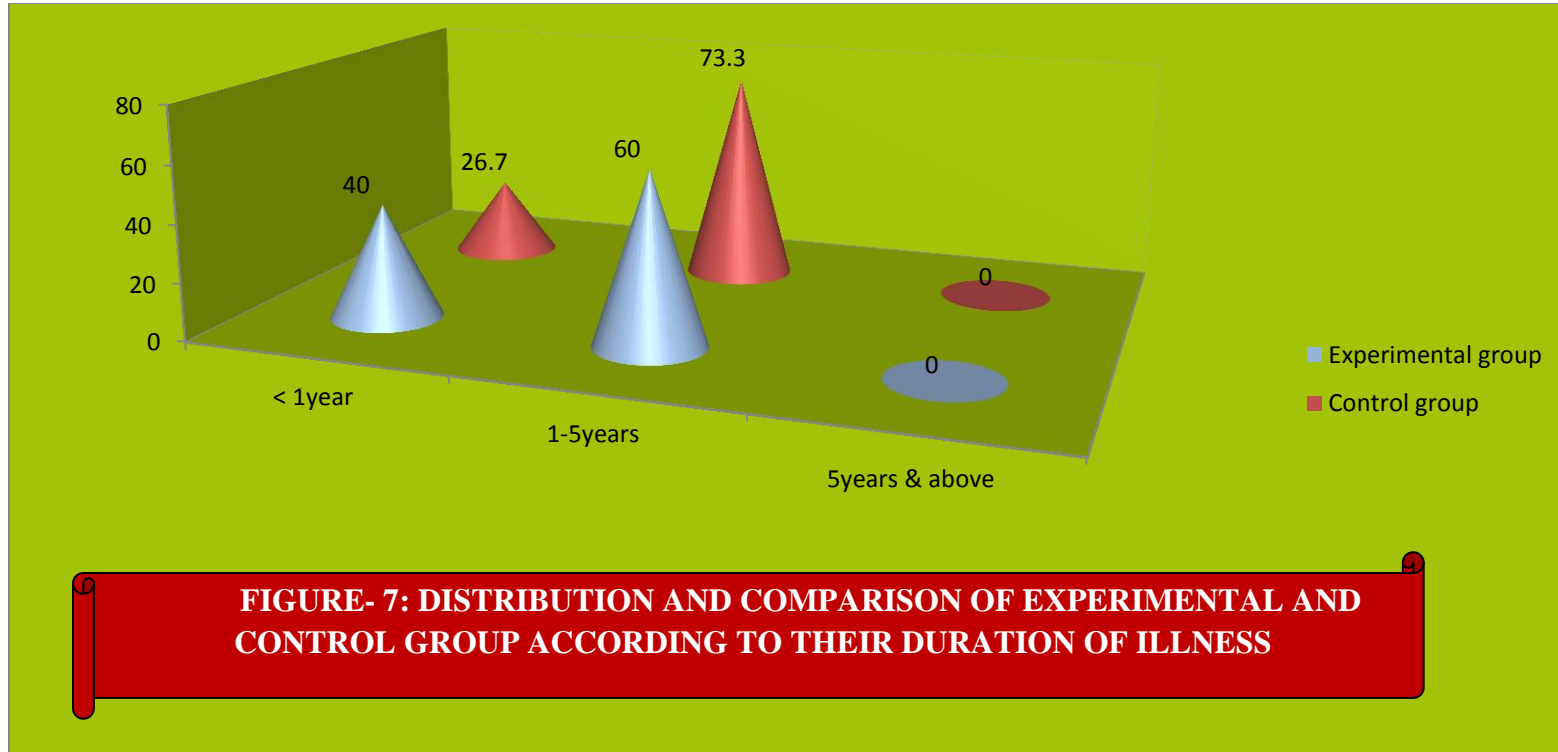


Fig.7 represents distribution and comparison of head and neck cancer patients according to their duration of illness, majority of 18 (60%) and 22 (73.3%) had illness for 1-5 years in both groups respectively.

SECTION – II

**Table 2: DATA ON THE PRE TEST LEVEL OF ANXIETY AMONG HEAD
AND NECK CANCER PATIENTS**

N=30

Sl. No	Level of Anxiety	Pre-Test(n=30)			
		Experimental group		Control group	
		f	%	f	%
1	Normal (0-45)	-	-	-	-
2	Minimal To Moderate (46-59)	14	46.7	18	60
3	Moderate To Severe (60-74)	16	53.3	12	40
4	Most Extreme (75-100)	-	-	-	-

Table 2: It shows that with regard to the pre test level of anxiety in experimental group 14 (46.7%) were in minimal to moderate level of anxiety, 16 (53.3%) were in moderate to severe level of anxiety. Where as in control group 18 (60%) were in minimal to moderate level of anxiety, 12 (40%) were in moderate to severe level of anxiety.

**Table 3: DATA ON THE POST TEST LEVEL OF ANXIETY AMONG HEAD
AND NECK CANCER PATIENTS**

N=30

Sl. no	Level of Anxiety	Post Test(n=30)			
		Experimental group		Control group	
		f	%	f	%
1	Normal (0-45)	10	33.3	4	13.3
2	Minimal To Moderate (46-59)	14	46.7	17	56.7
3	Moderate To Severe (60-74)	6	20	9	30
4	Most Extreme (75-100)	-	-	-	-

Table 3: It shows that with regard to the post test level of anxiety in experimental group 10(33.3%) were in normal, 14 (46.7%) were in minimal to moderate level of anxiety, 6 (20%) were in moderate to severe level of anxiety. Where as in control group 4(13.3%) were in normal,17 (56.7%) were in minimal to moderate level of anxiety, 9(30%) were in moderate to severe level of anxiety.

It further states that the level of anxiety decreased and 10 of them become normal after guided imagery which were evidence in post-test assessment in experimental group where as in control group much change was not identified.

SECTION – III

DATA ON COMPARISON OF THE EFFECTS OF GUIDED IMAGERY ON ANXIETY AMONG HEAD AND NECK CANCER PATIENTS.

Testing of hypothesis

H₁ : There will be a significant difference between the pre-test & post-test level of anxiety among head and neck cancer patients in experimental group.

Table 4: Mean, Standard deviation, Mean Difference, t-value of pre test and post test level of anxiety among cancer patients in experimental group.

N=30

Sl. No	Scores	Experimental group(n=30)		MD	Paired t-value
		Mean	SD		
1.	Pre test	59	7.52	51.48	4.05* S
2.	post test	51.3	7.27	44.03	

S *Significant at p<0.05 level

NS # Non Significant at p>0.05 level

Table 4: reveals that in experimental group, the pre test mean score is 59 with Standard deviation of 7.52, mean difference 51.48 and the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03. The calculated paired t-test score is 4.05. It is significant at $p < 0.05$ level.

Where as in control group, the pre test mean score was 57.6 with Standard deviation of 7.8, mean difference 49.8 and the post-test mean score was 52.7 with Standard deviation of 6.57, mean difference 46.13. The calculated paired t-test score was 2.64. It was not significant at $p > 0.05$ level.

It is inferred that guided imagery is highly effective in reducing anxiety among head and neck cancer patients. So the research hypothesis is accepted.

Testing of hypothesis

H₂ : There will be a significant difference between post test level of anxiety among head and neck cancer patients in experimental and control group.

Table 5: Mean, Standard deviation, Mean difference, t- value of post-test level of anxiety among head and neck cancer patients in experimental and control group.

N=60

Sl. No	Groups	Mean	SD	MD	Unpaired t-value
1.	Experimental group	51.3	7.27	44.03	4.38*
2.	Control group	52.7	6.57	46.13	

*Significant at 0.05 level.

Table 5: It reveals that in experimental group the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03 and in control group post test mean score is 52.7 with Standard deviation of 6.57, mean difference 46.13 and the calculated unpaired t-test is 4.38 which was significant at $p < 0.05$ level. So the stated hypothesis is accepted.

SECTION – IV

Table 6: DATA ON ASSOCIATION BETWEEN POSTTEST LEVEL OF ANXIETY AMONG HEAD AND NECK CANCER PATIENTS WITH SELECTED DEMOGRAPHIC VARIABLES.

Testing of hypothesis

H₃ : There will be significant association between the post test level of anxiety among head and neck cancer patients with selected demographic variables .

Data on association between the post test level of anxiety among head and neck cancer patients with selected demographic variables in experimental groups.

n=30

Sl. no	Demographic variables	Level of anxiety					P value	df	χ^2
		Normal	Mild- moderate	Moderate- severe	Extreme	total			
1	Age (in years)								
	< 25 years	1	2	1	0	4	12.59	6	0.86 NS
	25-50 years	2	2	1	0	5			
	> 50 years	7	10	4	0	21			
2	Sex								
	Male	7	8	5	0	20	7.82	3	1.39 NS
	Female	3	6	1	0	10			

3	Religion								
	Hindu	3	7	2	0	12			
	Christian	7	6	4	0	17	12.59	6	4.76
	Muslim	0	1	0	0	1			NS
4	Marital Status								
	Unmarried	2	3	1	0	6			0.16
	Married	8	11	5	0	24	7.82	3	NS
5	Educational status								
	Illiterate	1	3	1	0	5			0.31
	Literate	9	11	5	0	25	7.82	3	NS
6	Occupation								
	Employed	7	8	3	0	18	7.82	3	0.69
	Unemployed	3	6	3	0	12			NS
7	Type of family								
	Nuclear	3	6	4	0	13	7.82	3	1.8
	Joint	7	8	2	0	17			NS
8	Monthly income status								
	Below Rs 1000/month	0	1	0	0	1			1.97
	Rs 1001-5000/month	8	9	5	0	22	12.59	6	NS
	Rs 5000 & above	2	4	1	0	7			
9	Residence of patient	6	7	4	0	17	7.82	3	
	Rural	4	7	2	0	13			0.44
	Urban								NS
10	Duration of illness								
	<1 year	4	4	4	0	12	12.59	6	
	1-5 years	6	10	2	0	18			2.46
	5 years & above	0	0	0	0	0			NS

* significant at $p > 0.05$ level

Table 6: It shows that there is no significant association between the age (0.86), sex (1.39), religion (4.76), marital status (0.16), educational status (0.31), occupation (0.69), type of family (1.8), monthly income status (1.97), residence of patient (0.44) and duration of illness (2.46) on level of anxiety. Hence the research hypothesis H_3 was not accepted.

SUMMARY

This chapter dealt with analysis and interpretation of data obtained by the researcher. The analysis of the result showed that the level of anxiety in the experimental groups anxiety has reduced by guided imagery when compared to control group without guided imagery. This implies that guided imagery has a significant effect on reduction in level of anxiety among experimental group of head and neck cancer patients with anxiety.

CHAPTER V

DISCUSSION

CHAPTER V

DISCUSSION

This chapter deals with the discussion of the data analyzed based on the objective and hypothesis of the study. The problem stated was “A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”. The discussion was based on the objectives of the study and the hypotheses mentioned in the study.

OBJECTIVES OF THE STUDY

- ❖ To assess the pretest and post test level of anxiety among head and neck cancer patients in experimental and control group.
- ❖ To assess the effectiveness of guided imagery in reducing level of anxiety among patients with head and neck cancer between experimental group with control group.
- ❖ To determine the association between the post test level of anxiety among patients with head and neck cancer with selected demographic variables in experimental group .

Demographic variables of experimental and control group of head and neck cancer patients with anxiety

Regarding the age, majority of them were in the age group of above 51 years of 21 (70%) in experimental group and age group of 25-50 years 16 (53.3%) respectively in

control group and others of around 3 to 11 were found in other categories in both groups.

Regarding sex, there were majority of 20 (66.7%) male in experimental group and 17 (56.7%) male in control group.

Regarding religion, majority of around 17 (56.7%) were christians in experimental group and 15 (50%) in control group.

Regarding marital status, majority of 24 (80%) and 22 (73.3%) were married persons in both groups.

Regarding education, majority of them were in literate persons of 25 (83.3%) and 28 (93.3%) in both groups.

Regarding occupation, majority of 18 (60%) and 16 (53.3%) were employed persons in both groups.

Regarding type of family, majority of 17 (56.7%) were joint family in experimental group and 18 (60%) were nuclear family in control group.

Regarding monthly income status, majority of 22 (73.3%) and 21 (70%) had Rs.1000- Rs.5000/- monthly income in both groups.

Regarding residence of patient, majority of 17 (56.7%) were stayed rural places in experimental group and 16 (53.3%) were stayed urban areas in control group.

Regarding duration of illness, majority of around 18 (60%) and 22 (73.3%) were in 1-5 years duration of illness in both groups.

Objective 1: To assess the level of anxiety in experimental and control group among head and neck cancer patients before and after administration of guided imagery.

On analyzing the data on pre-test level of anxiety among head and neck cancer patients revealed that in experimental group 14 (46.7%) were in minimal to moderate level of anxiety, 16 (53.3%) were in moderate to severe level of anxiety. Where as in control group 18 (60%) were in minimal to moderate level of anxiety, 12 (40%) were in moderate to severe level of anxiety.

It further states that the level of anxiety decreased and 10 of them become normal after guided imagery which were evidence in post-test assessment in experimental group where as in control group much change was not identified.

The findings were supported by the study done by Neel, C. et al. (2013) on the determinants of death anxiety in patients with advanced cancer found that, death anxiety in patients advanced cancer is common and determined by the interaction of individual factors, family circumstances and physical suffering.

Objective 2: To compare the level of anxiety among experimental and control group before and after administration of guided imagery.

In experimental group, the pre test mean score is 59 with Standard deviation of 7.52, mean difference 51.48 and the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03. The calculated paired t-test score is 4.05. It is significant at $p < 0.05$ level.

On the other hand control group, the pre test mean score was 57.6 with Standard deviation of 7.8, mean difference 49.8 and the post-test mean score was 52.7 with Standard deviation of 6.57, mean difference 46.13. The calculated paired t-test score was 2.64. It was not significant at $p > 0.05$ level.

The findings of the study were supported by the study conducted by Gillies, L.C. (2005) study to evaluate the effects of guided imagery on anxiety among metastatic cancer patients. The participants were requested to listen to tape at least once a day. The result shows that guided imagery significantly reduces the anxiety.

Objective 3: To find out the association between the post-test level of anxiety among head and neck cancer patients with selected demographic variables in experimental group.

In experimental group the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03 and in control group post test mean score is 52.7 with

Standard deviation of 6.57, mean difference 46.13 and the calculated unpaired t-test is 4.38 which was significant at $p < 0.05$ level. So the stated hypothesis is accepted.

The findings were congruent with the study done by Cohen, M. (2013) on anxiety and somatic symptoms in older cancer patients found that intensity of symptoms were explained by older age, higher number of cancer related problems, female gender and lower income.

SUMMARY

This chapter dealt with the objectives of the study, major findings of the demographic variables of cancer patients with anxiety, description of the level of anxiety among head and neck cancer patients in experimental and control group, association between the demographic variable and post-test level of anxiety in experimental group and control group.

CHAPTER VI

SUMMARY

CONCLUSION

IMPLICATIONS

RECOMMENDATIONS

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATIONS & RECOMMENDATIONS

This Chapter deals with the summary of the study and the conclusion drawn from the study, implication of the study for different areas like nursing practice, nursing education, nursing administration and nursing research it also includes the recommendation for future research in the field.

SUMMARY

The summary includes the objectives of the study, description of procedures used, major findings and conclusion and recommendations for the research study. The present study is **“A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”**.

THE OBJECTIVES OF THE STUDY WERE

- ❖ To assess the pretest and post test level of anxiety among head and neck cancer patients in experimental and control group.
- ❖ To assess the effectiveness of guided imagery in reducing level of anxiety among patients with head and neck cancer between experimental group with control group.

- ❖ To determine the association between the post test level of anxiety among patients with head and neck cancer with selected demographic variables in experimental group.

RESEARCH HYPOTHESIS

H₁ : There will be a significant difference between the pre-test and post-test level of anxiety among head and neck cancer patients in experimental group.

H₂ : There will be a significant difference in post test level of anxiety among head and neck cancer patients between experimental and control group.

H₃ : There will be significant association between the post test level of anxiety among head and neck cancer patients and demographic variables in experimental group.

The **conceptual framework** and model adapted for this study is based on **Modified Roy's Adaptation Model (1984)**. It was proposed by Callista Roy. Adaptation Model focuses on the concept of adaptation of a person. It includes input, control, effectors and output.

The investigator organized the **Review of literature** under the following sections

- Studies related to anxiety among head and neck cancer patients.
- Studies related to effect of guided imagery on anxiety among head and neck cancer patients.

In the **methodology** the investigator selected a nonrandomized control group design. The variables in the study are as follows,

- **Independent variable:** guided imagery.
- **Dependent variable:** anxiety among head and neck cancer patients.

The tool used to collect the data consisted of two parts,

Part I: contain demographic variables with Age, Sex, Religion, Marital status, Educational status, occupation, Type of family, Monthly income status, Residence of patient, and Duration of illness.

Part II: Modified Zung Anxiety Assessment Scale is used to assess anxiety among head and neck cancer.

Content validity was established by 5 Nursing Experts, 3 medical experts and was found to be reliable and feasible. Reliability of the tool was calculated by test retest method. Pilot study was conducted among 10 head and neck cancer patients with anxiety in International Cancer Centre, Neyyoor.

Main study data collection was done for 4 weeks in International Cancer Centre, Neyyoor, at the month of November. The convenient sampling technique was adopted to select the samples based on the inclusion and exclusion criteria. Structured interview questionnaire was used to obtain the background factors. Then the investigator gave the guided imagery for 21 days.

After the guided imagery for 21 days the post test was done for head and neck cancer patients with anxiety in both Experimental and Control group. Collected data was

analyzed and interpreted as per the objectives of the study by using the Descriptive statistics (Mean, Standard deviation, Frequency, and percentage) and the inferential statistics (t-test, Chi-square) methods after careful editing, coding, and transfer to computer, tabulating and decoding.

CONCLUSION

The need to provide quality mental health care for individuals in cancer centre settings has been a critical issue, as the aging population grows rapidly and institutional care become necessity for some head and neck cancer patients.

The study findings revealed that guided imagery helps to reduce anxiety among head and neck cancer patients residing in International Cancer Centre, Neyyoor. The study also reveals no association between some demographic variables like Age, Sex, Religion, Marital status, Educational status, occupation, Type of family, Monthly income status, Residence of patient, and Duration of illness.

MAJOR FINDINGS OF THE STUDY

Findings related to demographic variables of head and neck cancer patients with anxiety

Regarding the age, majority of them were in the age group of above 51 years of 21 (70%) in experimental group and age group of 25-50 years 16 (53.3%) respectively in

control group and others of around 3 to 11 were found in other categories in both groups.

Regarding sex, there were majority of 20 (66.7%) male in experimental group and 17 (56.7%) male in control group.

Regarding religion, majority of around 17 (56.7%) were christians in experimental group and 15 (50%) in control group.

Regarding marital status, majority of 24 (80%) and 22 (73.3%) were married persons in both groups.

Regarding education, majority of them were in literate persons of 25 (83.3%) and 28 (93.3%) in both groups.

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Regarding type of family, majority of 17 (56.7%) were joint family in experimental group and 18 (60%) were nuclear family in control group.

Regarding monthly income status, majority of 22 (73.3%) and 21 (70%) had Rs.1000- Rs.5000/- monthly income in both groups.

Regarding residence of patient, majority of 17 (56.7%) were stayed rural places in experimental group and 16 (53.3%) were stayed urban areas in control group.

Regarding duration of illness, majority of around 18 (60%) and 22 (73.3%) were in 1-5 years duration of illness in both groups.

Findings related to level of anxiety in experimental and control group among head and neck cancer patients before and after administration of guided imagery.

On analyzing the data on pre test level of anxiety among head and neck cancer patients revealed that, in experimental group 14 (46.7%) were in minimal to moderate level of anxiety, 16 (53.3%) were in moderate to severe level of anxiety. Where as in control group 18 (60%) were in minimal to moderate level of anxiety, 12 (40%) were in moderate to severe level of anxiety.

It further states that the level of anxiety decreased and 10 of them become normal after guided imagery which were evidence in post-test assessment in experimental group where as in control group much change was not identified.

Findings related to comparison of the level of anxiety among experimental and control group before and after administration of guided imagery.

In experimental group, the pre test mean score is 59 with Standard deviation of 7.52, mean difference 51.48 and the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03. The calculated paired t-test score is 4.05. It is significant at $p < 0.05$ level.

On the other hand control group, the pre test mean score was 57.6 with Standard deviation of 7.8, mean difference 49.8 and the post-test mean score was 52.7 with Standard deviation of 6.57, mean difference 46.13. The calculated paired t-test score was 2.64. It was not significant at $p>0.05$ level.

Findings related to association between the post-test level of anxiety among head and neck cancer patients with their selected demographic variables in experimental group.

In experimental group the post test mean score is 51.3 with Standard deviation of 7.27, mean difference 44.03 and in control group post test mean score is 52.7 with Standard deviation of 6.57, mean difference 46.13 and the calculated unpaired t-test is 4.38 which was significant at $p< 0.05$ level. So the stated hypothesis is accepted.

IMPLICATIONS

The findings of the study reveals the effectiveness of Guided imagery can be implied in nursing practice, nursing education, nursing research and nursing administration.

IMPLICATIONS TO NURSING PRACTICE

1. Guided imagery can be given to head and neck cancer patients in decreasing anxiety.

2. Guided imagery can be planned and given by staff as a non pharmacological intervention for their clients.
3. The nurses can identify the head and neck cancer patients with mild, moderate, severe and extreme anxiety.
4. The nurse can plan, organize and implement guided imagery for anxiety among head and neck cancer patients.
5. The nurse can educate the care givers about the techniques of guided imagery and its importance.
6. The nurse can give awareness to the public regarding anxiety among head and neck cancer patients.
7. The study findings will enable the care givers of the head and neck cancer patients to take part in active service.
8. The nurse being a professional care giver has a responsibility to look after the head and neck cancer patients of our country.
9. Nurses are acting as the health promoters. They play an important role in educating care givers regarding importance of guided imagery in reducing anxiety.

IMPLICATIONS TO NURSING EDUCATION

1. Alternative and complementary therapies can be integrated as an adjuvant on to the existing therapies in the nursing curriculum.

2. Nurse educator can train and encourage the student nurses to utilize Guided imagery as complementary therapy in their professional life.
3. Guided imagery may be integrated in the psychiatric nursing programme.
4. Arrange for workshops for students to participate, so that they gain information about guided imagery in anxiety.
5. In-service education can be given to the nursing personnel regarding common problems of head and neck cancer patients.
6. The nursing students must be prepared to provide structured teaching programmes on anxiety of head and neck cancer patients and its remedial measures to the care givers.
7. Nurse educators must arrange facilities and opportunities for special educators and nursing personnel to attend workshops and conferences to update their knowledge regarding the importance of guided imagery.

IMPLICATIONS TO NURSING ADMINISTRATION

- (i) This study helps the nurse administrator to assess the knowledge of nurses regarding complementary therapies.
- (ii) The nurse administrator can conduct in-service education program on Guided imagery in decreasing anxiety among head and neck cancer patients.
- (iii) This helps the nurse administrator to develop and provide an effective non-pharmacological measure for decreasing anxiety among head and neck cancer patients.

- (iv) Nurse administrator can create awareness among nurses that Guided imagery is a simple, nursing intervention in decreasing anxiety.
- (v) Nursing administrator can intimate the need for treating the head and neck cancer patients with cognitive anxiety through media, posters, pamphlets and hand outs.
- (vi) Nurse administrator can encourage peripheral nurses to conduct health visit regularly for community to identify new cases of head and neck cancer patients with anxiety.

IMPLICATIONS TO NURSING RESEARCH

- (i) The findings of the study increases the scope for expanding the quality of nursing service, In this area of evidence based practice, publication of this study will contribute a part for the improvement of profession.
- (ii) Nurse researcher can do studies related to other beneficial effects of Guided imagery.
- (iii) A comparative study can be done to determine the effectiveness of Guided imagery with other alternative therapies.
- (iv) Similar study can be concluded on a large sample so it could be generalized.
- (v) The study findings help to expand professional knowledge upon which further researchers can be conducted.
- (vi) Based on the study, related studies can be done by the use of different other therapies.

- (vii) The study findings will motivate to do further research on non pharmacological methods.

RECOMMENDATIONS

- a) Similar study can be conducted with large sample and in different settings.
- b) Comparison of guided imagery with other therapies like reminiscence therapy, music therapy can be done.
- c) Knowledge attitude and skills of medical and paramedical personnel's regarding guided imagery can be assessed.
- d) A similar study can be conducted on other age groups of individuals.
- e) Can educate the public regarding common psychological problems of head and neck cancer patients.
- f) A longitudinal study can be conducted to find out the long term effect of guided imagery.

CONCLUSION

The overall experience of conducting the study was new experience for the investigator in the field of research. The constant encouragement and the direction of guides, co-operation of respondents to participate in the study contributed to the fruitful and successful completion of the study.

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ANNEXURES

ANNEXURE I

LETTER SEEKING PERMISSION TO CONDUCT THE STUDY.

	Annammal College of Nursing (Approved by Govt. of Tamilnadu, TN Nurses & Midwives Council, Indian Nursing Council and Affiliated to The Tamilnadu Dr. MGR Medical University) Annammal Hospital Campus, KUZHITHURAI - 629 163 K.K. Dist, Tamil Nadu. Ph : 04651 - 260614, Fax : 04651 - 260605 www.annammalnursing college.com Email : annammalcollege2007@yahoo.co.in	
	Dr. Sheeba Jayalal MBBS, DGO Chairperson	Date :
	From Mrs.J.M.Jerlin Priya M.Sc(N).,Ph.D., Principal, Annammal College of Nursing, Kuzhithurai,	
	To The Chief Medical Officer, International Cancer Centre, Neyyoor.	
	Respected Sir/Madam, Sub: Permission letter for conducting the study Mr.S.Bennet Raj,II year M.Sc (N) student of Annammal College of Nursing, Kuzhithurai is approaching you to conducted a research on "A Quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor". Which he has to complete in partial fulfillment of university requirement for the award of master of science in nursing degree. In this regards I humbly request you to give permission to conduct the study in your hospital. Thanking you Kuzhithurai, 22-8-2013	Yours faithfully,  Principal ANNAMMAL COLLEGE OF NURSING KUZHITHURAI 629 163
		
<i>"What we are is gift of god and What we become is gift to god"</i>		

ANNEXURE II
LETTER GRANTING PERMISSION TO CONDUCT THE
STUDY.

KANYAKUMARI MEDICAL MISSION C.S.I.
INTERNATIONAL CANCER CENTRE, NEYYOOR
Dr. S. RAJESH SATHYA, M.B.B.S., M.D., D.A.A., D.N.B. (Cardiology)
Director-in-charge


Phone : 04651-222334
POST BAG No. 4
NEYYOOR - 629 802
KANYAKUMARI DISTRICT
TAMIL NADU, S. INDIA

Ref. No.

Date: **03.12.2013**

TO WHOM SO EVER IT MAY CONCERN

This is to state that the dissertation, "A Quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor". by Mr.Bennet Raj.S , the 2nd year M.Sc (N) student, Annammal College Of Nursing was conducted in our Hospital from 01.11.2013 to 30.11.2013 at 9 AM -3 PM.


Dr.V.G.Sudhakaran,MD.,DMRT.,
Consultant, Head of the department,
Radiation Oncology.



ANNEXURE III

ETHICAL COMMITTEE LETTER.

ETHICAL CLEARANCE CERTIFICATE

Name of the Investigator: **S.Bennet Raj**

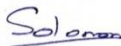
The Ethical Committee meeting held on 02-02-2013 had reviewed the project titled "A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyoor." The proposal was submitted before ethical committee for the acceptance and found to be acceptable on ethical grounds. The ethical committee held responsibility and accountability for the investigator for any other administrative/regulatory approvals that may pertain to this research. This has to be carried out according to the conditions outlined in the original protocol submitted for ethics review.

This certificate of approval is valid for the time period provided, there is no change in the methodology protocol or consent process and documents.

Any significant change should be reported to guide for its considerations in advance for its implementation.

Signature of Research Committee members :

1. Dr. Sheeba Jayalal M.B.B.S., D.G.O.,
Chief Medical Officer
2. Dr. J.A.Jayalal M.S., F.I.C.S., D.L.S (Germany), M.B.A., F.I.A.G.E.S
Chief Surgeon
3. Dr. Jeya Raj, M.Sc., M.A, M.Ed., M.Phil., BGL, PhD
District Liaison officer
4. Dr. ~~X~~Santhi Appavu, M.Sc. (N), Ph.D.,
Nursing Research Advisor
5. Dr. Nazereth Solomon M.B.B.S
Physician
6. Mrs. J.M. JerlinPriya, M.Sc. (N)
Research Guide
7. Mr. Vinifred, M.Sc. (N)
Subject Guide



ANNEXURE- IV
LETTER SEEKING EXPERTS OPINION FOR THE
VALIDITY OF THE TOOL



Annammal College of Nursing

(Approved by Govt. of Tamilnadu, TN Nurses & Midwives Council,
Indian Nursing Council and Affiliated to The Tamilnadu Dr. MGR Medical University)
Annammal Hospital Campus, KUZHITHURAI - 629 163
K.K. Dist, Tamil Nadu. Ph : 04651 - 260614, Fax : 04651 - 260605
www.annammalnursing college.com Email : annammalcollege2007@yahoo.co.in

Dr. Sheeba Jayalal MBBS, DGO
Chairperson

Date :

To

Madam/sir,

Sub : M.Sc Nursing Programme - Dissertation - Validation Of study
tool request – reg

Mr. S.Bennet Raj , a bonafied II year msc nursing student of Annammal college of Nursing is approaching you to obtain validation his study tool pertaining to his dissertation in partial fulfillment of the requirements for the degree of master of science in nursing. the selected topic is "A Quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International cancer centre, Neyyoor".

In this regard I request you to kindly extent possible technical guidance and support for successful completion of dissertation.

I enclosed here with a check list for your evaluation.

Thanking you



Yours sincerely,

Principal
ANNAMMAL COLLEGE OF NURSING
KUZHITHURAI 629 163

"What we are is gift of god and What we become is gift to god"

ANNEXURE -v

EVALUATION CRITERIA CHECK LIST FOR VALIDATING THE TOOL

Instructions:

The expert is requested to go through the following criteria for evaluation. Three columns are given for responses and a column for remarks. Kindly place tick mark in the appropriate column and give remarks.

Interpretation of column:

Column I : Meets the criteria.

Column II : Partially meets the criteria.

Column III :Does not meet the criteria.

S.NO	CRITERIA	1	2	3	REMARKS
1	Content <ul style="list-style-type: none">• Adequacy• Relevance• Organized				
2	Language <ul style="list-style-type: none">• Simplicity• Clarity• Relevant				
3	Scoring <ul style="list-style-type: none">• Easy To Score• Clarity				
4	Practicability <ul style="list-style-type: none">• Procedure• Utility• Feasibility				

Signature:

Name :

Designation :

Address:

Signature of the expert

ANNEXURE VI

LIST OF EXPERTS.

1. **Dr. Arul Prakash M.D. DPM.,**
Psychiatric Consultant,
Kanyakumari Government Medical College Hospital,
Asaripallam Nagercoil

2. **Mrs. Sisila Rani M.Sc, M.Sc, M.Ed,M.Phil.,**
Clinical Psychologist,
Government head quarter's Hospital,
Padmanathapuram.

3. **Prof. Viswam B.Sc., M.S.W., M.Phil(NIMHANS).,**
Psychotherapist,
cosmopolitan Hospital,
Trivandrum 5.

4. **Mrs. J.Gracia M.Sc(N).,**
Principal,
C.S.I College of Nursing ,
Marthandam.

5. **Mrs. Eujin .S.B M.Sc(N).,**
Asso.professor,
Saraswathy College of Nursing ,
parassala.

6. **Mrs. A. Subhala M.Sc(N).,**
Reader,
St. Xavier's Catholic College of Nursing,
Chunkankadai.

7. **Mrs.J.Rufa Mithsu M.Sc(N).,**
Reader,
Christian College of Nursing,
Neyyoor.
8. **Mrs.T.Jega Juliet M.Sc(N).,**
Reader,
Christian College of Nursing,
Neyyoor
9. **Mrs.Jeba Santhi M.Sc(N).,**
Principal,
school of Nursing,
Neyyoor
10. **Mrs.S.Sheeja M.Sc(N).,**
Reader,
Grace College of Nursing,
Padanthalummodu.
11. **Mr. Anto John Britto M.Sc., M.Ed., M.Phill., P.G., BBM.,**
Bio Statistican,
Scott Christian college,
Nagercoil.

ANNEXURE VII
CERTIFICATE FOR GUIDED IMAGERY

Prof. M. P. VISWAM B.Sc, M.S.W, M.Phil (NIMHANS)

Former H.O.D. of Social Work, SSUS Kalady
Consultant family counselor / Psychotherapist
J.J. Hospital, Trivandrum – 5. Ph: 2438789
Cosmopolitan Hospital, Ph: 2521252
Kerala University Health Centre

40 PTP Nagar (E), Trivandrum – 695 038 Mob : 9388712360, 9495360903 Ph : 2360903

28/10/2013

CERTIFICATE

This is to certify that Mr. Bennet Raj.S, II year M.Sc. (N) student, Annammal College of Nursing, Kuzhithurai, Kanyakumari Dist, TamilNadu, was here for the training programme on 'GUIDED IMAGERY' on anxiety among cancer patients for 7 days. He was able to pickup basic things in the Guided Imagery. He took keen interest in learning programme. The tool used in this study found to be valid.




Prof. M. P. VISWAM

Consultant family counselor / Psychotherapist

Prof. M. P. VISWAM
Consultant Counselor

ANNEXURE VIII
RESEARCH PARTICIPANT CONSENT FORM

Dear participant,

I am a M.Sc., Nursing student of Annammal College of Nursing, Kuzhithurai. As a part of my study, a research on 'Effectiveness of Guided Imagery on Anxiety among Head and Neck Cancer Patients'. The findings of the study will be helpful in reducing the anxiety in Head and Neck Cancer Patients. I hereby seek your consent and co-operation to participate in the study. Please be frank and honest in your responses. The information collected will be kept confidential and anonymity will be maintained.

Signature of the researcher

I hereby consent to participate and undergo the study.

Place:

Date:

Signature of the participant

ஆராய்ச்சிஒப்புதல் படிவம்

அன்பார்ந்தபங்குபெறுவோரே,

பென்னட் ராஜ்.Sஆகியநான் அன்னம்மாள்
செவிலியர் கல்லூரியில் செவிலியர் முதுகலைபட்டப்படிப்பு இரண்டாம்
ஆண்டுபடித்துவருகிறேன் எனதுபடிப்பின் ஒருபகுதியாக ,
படவழிவழிநடத்துதல் மூலம் தலைமற்றும் கழுத்துபகுதியில் புற்றுநோய்
உள்ளவர்களின் பயத்தைநீக்குவதுபற்றிஆராய்ச்சிசெய்கிறேன். இதற்கு
தங்களுடையஅனுமதியையும் , ஒத்துழைப்பையும் தரவேண்டுகிறேன். தயவு
செய்து உங்களுடையபதில்கள் உண்மையாகவும் வெளிப்படையாகவும்
இருக்கவேண்டுகிறேன்.உங்கள் பதில்கள் அனைத்தும்
ரகசியமாகபாதுகாக்கப்படும் எனஉறுதிஅளிக்கிறேன்.

ஆராய்ச்சியாளரின்

கையொப்பம்

நான் இந்தஆராய்ச்சியில் பங்குபெறசம்மதிக்கிறேன்.

இடம்:

நாள்:

பங்குபெறுவோரின் கையொப்பம்

ANNEXURE-I X

CERTIFICATE OF ENGLISH EDITING

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled “A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”, by Mr.Bennet Raj.S , has been checked for accuracy and correctness of English language usage in the tool .The language used in presenting the tool and procedure is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.


Signature

Mrs. E. Jeba Stanley. M.A., M.Ed., M.Ph.
PRINCIPAL
RAJAS COLLEGE OF EDUCATION
RAJA NAGAR, VADAKKANKULAM - 627 116.

ANNEXURE- X

CERTIFICATE OF TAMIL EDITING

CERTIFICATE OF TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled “A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor”, by Mr.Bennet Raj.S , has been checked for accuracy and correctness of Tamil language usage in the tool .The language used in presenting the tool and procedure is lucid, unambiguous free of grammatical or spelling errors and apt for the purpose.



Signature

முனைவர் மு. உமா மகேஸ்வரி,
எம்.ஏ., எம்.ஃபில்., பி.எச்.டி.,
தமிழ் உதவிப் பேராசிரியர்,
தெ.தி. இந்துக் கல்லூரி,
நாகர்கோவில்-629 002.

ANNEXURE- X I

CERTIFICATE OF STATISTICAL ANALYSIS

CERTIFICATE OF STATISTICAL ANALYSIS

TO WHOMSOEVER IT MAY CONCERN

Certified that the dissertation paper titled "A quasi experimental study to assess the effectiveness of guided imagery on anxiety among head and neck cancer patients at International Cancer Centre, Neyyoor", by Mr.Bennet Raj.S , has been checked for the accuracy in statistical analysis and interpretation and was apt for its purpose..

fmh.
P. Anto Paulin Ponnw
Bio-Statistician & Asst Prof
Scott Christian College
Nagercoil,
Signature

ANNEXURE XII
TOOL FOR DATA COLLECTION (ENGLISH)
RESEARCH TOOL
TOOL FOR DATA COLLECTION

Section –A demographic variables

1. Age

- a) <25 years []
- b) 25-50 years []
- c) >50 years []

2. Sex

- a) Male []
- b) Female []

3. Religion

- a) Hindu []
- b) Christian []
- c) Muslim []

4. Marital Status

- a) Single []
- b) Married []

5. Educational status

- a) Illiterate []
- b) Literate []

6. Occupation

- a) Employed []
- b) Unemployed []

7. Type of family

- a) Nuclear []
- b) Joint []

8. Monthly income status

- a) Below Rs 1000/month []
- b) Rs 1001-5000/month []
- c) Rs 5000 & above []

9. Residence of patient

- a) Rural []
- b) Urban []

10. Duration of illness

- a) <1 year []
- b) 1-5 years []
- c) 5 years & above []

MODIFIED ZUNG ANXIETY ASSESSMENT SCALE

S. No	Items	None or a little of the time (1)	Some of the time (2)	Good part of the time (3)	Most or all of the time (4)
1	Do you feel more nervous and anxious since cancer has diagnosed?				
2	Do you feel shaky, jittery or nervous when you experience uncontrollable pain?				
3	Have you felt tense, fearful or apprehensive at the time of diagnosis?				
4	Have you been confused or disoriented recently?				
5	Do you often worry about when your cancer pain will return and how bad It will get?				
6	Do you spend more time in bed than you should because of fear that the pain will increase if you stand up or more about?				
7	Do you worry about the next diagnostic test or the results of it ?				
8	Do you worry about whether you will be able to get your next dose of pain medications on time?				
9	Do you find yourself difficult in receiving the treatment for cancer..ie..chemotherapy, radiation?				
10	Have you had any unjustified sweating or trembling in knowing which stage of cancer are you suffering				
11	Have you felt your heart pounding or racing when your friends, relatives come to know that you are suffering from cancer?				
12	Have you had trouble catching about the remaining life with cancer?				
13	Have you suddenly had a fear of losing control , when you remember of cancer pain?				

14	Are you afraid to close your eyes at night for fear of cancer that you may die in your sleep?				
15	Have you suddenly had a fear of dying with cancer?				
16	Do you feel any emotional distress when any symptoms appear?				
17	Do you feel anxious as cancer spreads or treatment becomes more intense?				
18	Have you had to avoid certain places or activities because of fear?				
19	Are you upset or feel panicky of interfering with shortening of quality of life?				
20	Do you feel tense or apprehensive of anticipating a recurrence of cancer?				
21	Are you worried about your family.				
22	Do you feel fear of being lonely.				
23	Do you feel anxious about your treatment regimen.				
24	Are you bored with your follow up.				
25	Are you anxious about your disturbed body image.				

Scoring :

Below 45: within normal range

45 -59: minimal to moderate

60 -74: moderate to severe anxiety.

75 and above : most extreme anxiety.

ANNEXURE XIII
TOOL FOR DATA COLLECTION(TAMIL)

மதிப்பிற்குரியோரை, கவனமாக வாசித்தப் பின் சரியான விடையில் (✓)

குறியிடவும்

1. வயது (வருடத்தில்)
(அ) 25க்கும் குறைவாக ()
(ஆ) 25-50 ()
(இ) 51-க்கும் மேல் ()
2. பாலினம்
(அ) ஆண் ()
(ஆ) பெண் ()
3. மதம்
(அ) இந்து ()
(ஆ) கிறிஸ்தவர் ()
(இ) முஸ்லீம் ()
4. திருமண நிலை
(அ) திருமணமாகாதவர் ()
(ஆ) திருமணமானவர் ()
5. கல்வித் தகுதி
(அ) படிப்பறிவில்லாதவர் ()
(ஆ) படித்தவர் ()

6. தொழில்
(அ) வேலை செய்பவர் ()
(ஆ) வேலையற்றவர் ()
7. குடும்ப வகை
(அ) தனிக்குடும்பம் ()
(ஆ) கூட்டுக்குடும்பம் ()
8. குடும்ப மாத வருமானம்
(அ) ரூ. 1000/-க்கும் குறைவாக ()
(ஆ) ரூ. 1000-5000-க்கும் குறைவாக ()
(இ) ரூ. 5000/-க்கும் மேல் ()
9. இருப்பிடம்
(அ) கிராமம் ()
(ஆ) நகரம் ()
- (10) நோயின் கால நிலை
(அ) 1 வருடத்திற் கீழ் ()
(ஆ) 1-5 வருடம் ()
(இ) 5 ஆண்டுக்கும் மேல் ()

வ. எண்		இல்லை	சில நேரம்	அதிக நேரம்	அனைத்து நேரமும்
1.	புற்று நோய் கண்டறியப்பட்டதிலிருந்து நீங்கள் மிகவும் பயமாகவும், பதட்டமாகவும் உணர்ந்தீர்களா?				
2.	தாங்க முடியாத வலியை அனுபவிக்கும் போது நீங்கள் பதட்டமாகவும் நடுக்கமாகவும் உணர்ந்தீர்களா?				
3.	நீங்கள் புற்று நோய்க்கான பரிசோதனை நேரத்தில் பதட்டம் மற்றும் பயத்துடன் இருந்தீர்களா?				
4.	நீங்கள் சமீபத்தில் குழப்பமாகவோ அல்லது உணர்வு இழந்தவர்களாகவோ உணர்ந்தீர்களா?				
5.	நீங்கள் அடிக்கடி புற்று நோய் வலி வருவதைப் பற்றி கவலைப்படுகிறீர்களா?				
6.	நிற்கும் போது வலி அதிகமாகும் என்ற பயத்தினால் நீங்கள் வழக்கத்தை விட அதிக நேரம் படுக்கையில் செலவிடுகிறீர்களா?				
7.	நீங்கள் முன் கூட்டியே அடுத்த பரிசோதனை மற்றும் அதன் முடிவுகளை பற்றி கவலைப்படுகிறீர்களா?				
8.	நீங்கள் குறித்த நேரத்தில் உங்களது அடுத்த முறைக்கான மருந்துகளை பெற்றுக் கொள்ள முடியுமா என்று பயப்படுகிறீர்களா?				
9.	நீங்கள் புற்று நோய் சிகிச்சைகள் (அல்லது) ஹீமோதெரபி மற்றும் கதிர்வீச்சு சிகிச்சை பெறுவதை கடினமாக உணர்கிறீர்களா?				
10.	நீங்கள் உங்களது புற்று நோயின் தீவிரம் எந்த நிலையில் உள்ளது என்பதை அறியும் போது அதிக வியர்வை மற்றும் நடுக்கம் ஏற்பட்டதா?				
11.	உங்கள் நண்பர்கள் மற்றும் உறவினர்கள் உங்களது புற்று நோயை பற்றி அறிந்த போது உங்கள் இதயம் வேகமாக துடிப்பதாக உணர்ந்தீர்களா?				
12.	உங்களது புற்று நோயினால் மீதமுள்ள வாழ்க்கையை பற்றி பிரச்சனை இருந்ததா?				
13.	நீங்கள் புற்று நோயின் வலியை நினைக்கும் போது திடீரென்று பயமாகவோ அல்லது கட்டுப்பாட்டை இழப்பது போன்றோ இருக்கிறதா?				

14.	நீங்கள் புற்று நோய் பயத்தின் காரணமாக இரவில் படுக்கையில் இறந்து விடுவோமா என கண்களை மூட பயப்படுகிறீர்களா?				
15.	நீங்கள் திடீரென்று புற்று நோயினால் இறப்பதைப் பற்றி பயப்படுகிறீர்களா?				
16.	நீங்கள் புற்று நோயின் அறிகுறிகள் தோன்றும் போது துயரமாக உணர்கிறீர்களா?				
17.	நீங்கள் புற்று நோய் பரவுவதை மற்றும் அதன் சிகிச்சைகள் குறித்து பயப்படுகிறீர்களா?				
18.	புற்று நோயின் பயம் காரணமாக நீங்கள் சில இடங்கள் மற்றும் நடவடிக்கைகளை தவித்திருக்கிறீர்களா?				
19.	நீங்கள் உங்களது வாழும் காலத்தையும் வாழ்க்கை தரத்தையும் குறித்து சோகமாக உணர்கிறீர்களா?				
20.	புற்று நோய் மீண்டும் உருவாகும் என்பது குறித்து பதட்டமாக உணர்கிறீர்களா?				
21.	நீங்கள் உங்கள் குடும்பத்தைப் பற்றி கவலைப் படுகிறீர்களா?.				
22.	நீங்கள் தனிமைப் படுத்தப் படுவதாக எண்ணுகிறீர்களா?.				
23.	சிகிச்சை முறைகள் பற்றி நீங்கள் பயப்படுகிறீர்களா?				
24.	நீங்கள் அடிக்கடி மருத்துவப் பரிசோதனை செய்ய வருவதால் வெறுப்படைகிறீர்களா?				
25.	நீங்கள் உங்கள் தோற்ற அமைப்பு சிகிச்சை முறைகளால் மாறுவதை எண்ணி கவலைக் கொள்கிறீர்களா?				

ANNEXURE XIII**MASTER SHEET FOR EXPERIMENTAL GROUP**

Sl . No	Age	Sex	Religion	Marital status	Educational status	Occupation	Type of family	Monthly income status	Residence of patient	Duration of illness
1	c	b	a	b	b	a	b	c	b	b
2	a	a	b	a	b	a	a	c	b	a
3	c	a	b	b	a	b	b	b	a	a
4	b	b	a	b	b	b	b	b	a	b
5	c	a	b	a	b	b	a	b	a	b
6	c	a	b	b	b	a	a	b	b	b
7	a	a	a	a	b	a	b	b	a	a
8	c	a	a	b	b	b	b	b	a	b
9	c	a	b	b	a	a	a	b	a	b
10	c	b	b	b	b	a	a	c	b	a
11	c	a	b	b	b	b	b	c	a	b
12	c	a	b	b	b	a	b	b	b	b
13	c	a	a	b	b	b	b	b	a	a
14	a	a	b	a	b	b	b	b	a	b
15	c	a	a	b	b	a	a	b	a	a
16	c	b	b	b	a	a	b	b	b	a
17	b	a	b	b	b	a	a	c	a	a
18	c	a	a	b	b	b	a	b	b	b
19	c	a	c	b	b	a	a	b	a	b
20	c	b	a	b	b	b	b	b	a	b
21	b	b	b	b	a	a	b	b	b	b
22	c	a	b	b	b	a	b	b	b	a
23	a	b	b	a	b	b	a	b	b	b
24	c	a	b	b	b	b	b	b	a	b
25	c	a	a	b	b	a	b	b	a	a
26	c	a	a	b	b	a	b	a	b	b
27	c	b	a	b	b	b	a	c	a	b
28	b	b	b	a	b	a	b	b	a	b
29	c	a	b	b	b	a	a	b	b	a
30	b	b	a	b	a	a	a	c	b	a

MASTER SHEET FOR CONTROL GROUP

Sl.No	Age	sex	religion	Marital status	Educational status	occupation	Type of family	Monthly income status	Residence of patient	Duration of illness
1	c	b	a	a	b	b	b	a	b	b
2	a	b	b	a	b	a	a	b	b	a
3	c	a	a	b	b	b	a	c	a	b
4	b	a	a	b	b	a	a	c	a	a
5	b	a	b	b	b	a	a	b	a	b
6	c	b	b	b	a	b	b	b	b	b
7	b	a	b	b	b	a	b	b	a	b
8	c	b	a	b	b	b	a	a	a	a
9	b	b	b	a	b	a	a	b	b	b
10	c	a	a	b	b	b	b	c	a	b
11	b	a	b	b	b	a	a	b	b	a
12	b	b	a	a	b	a	b	b	a	b
13	b	a	b	b	b	a	a	b	b	b
14	c	a	b	b	b	b	a	b	b	b
15	b	a	b	b	b	b	b	c	b	a
16	c	a	a	a	b	a	b	b	a	b
17	b	b	b	b	b	a	a	b	a	b
18	b	b	b	b	b	b	a	b	a	b
19	b	b	b	b	b	a	b	b	b	b
20	a	a	c	b	b	a	a	a	a	a
21	c	a	b	b	b	b	a	b	a	b
22	b	a	b	b	b	b	b	b	a	b
23	b	a	b	b	b	b	a	b	b	b
24	b	b	a	b	b	a	a	c	b	a
25	b	a	b	a	b	a	a	b	b	b
26	b	b	b	a	b	a	a	b	a	b
27	c	b	a	b	b	b	a	b	a	b
28	c	a	a	b	b	b	b	b	a	b
29	c	a	b	b	a	b	b	b	b	b
30	a	b	a	a	b	a	b	c	b	a